

AMATS Glenn Highway Integrated Corridor Management (ICM) Study, Phase II

IRIS Program No. CFHWY00289

Federal Project No. 0A16052

Emergency Traffic Control Guidelines

January 2019



Prepared For:
DOT&PF

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Abbreviations

AMATS	Anchorage Metropolitan Transportation Solutions
APD	Anchorage Police Department
ASD	Anchorage School District
CMS	Changeable Message Sign
DOT&PF	Alaska Department of Transportation and Public Facilities
ICS	Incident Command System
JBER	Joint Base Elmendorf Richardson
KE	Kinney Engineering
MOA	Municipality of Anchorage
MSB	Matanuska-Susitna Borough
NIMS	National Incident Management System
PGDHS	<i>A Policy on Geometric Design of Highways and Streets</i>

1 Introduction

The Alaska Department of Transportation and Public Facilities (DOT&PF) has retained Kinney Engineering, LLC (KE) to prepare Emergency Traffic Control Guidelines as part of the Glenn Highway Integrated Corridor Management Study (ICM).

The study area is the portion of the Glenn Highway contained within the Anchorage Metropolitan Transportation Solutions (AMATS) boundary. As depicted in Figure 1, the study corridor is located in the Municipality of Anchorage (MOA) and extends from MPT 0, at Airport Heights/Mountain View Drive to MPT 29.1, which marks the end of the MOA and the beginning of the Matanuska-Susitna Borough (MSB).

The study corridor experiences non-recurring congestion due to unplanned events (such as crashes) and planned events (such as road construction), that require lane closures and have a significant negative impact on the movement of people and goods. These Emergency Traffic Control Guidelines are intended to provide ready-made plans and information necessary for the Department to rapidly respond to a specific set of events: incidents resulting in complete closure of at least one direction of traffic on the Glenn Highway that will extend through either the morning or the afternoon commute on a weekday, or will last more than 12 hours.

Closure Direction	Commute Impacted	Time Period of Heaviest Traffic
Southbound (Inbound)	Morning	6 AM to 8 AM
Northbound (Outbound)	Afternoon	3 PM to 7 PM (heaviest from 4 PM to 6 PM)

These Emergency Traffic Control Guidelines consist of three sections that can be effectively used as part of the Incident Command System (ICS) using National Incident Management System (NIMS) principles.

	Purpose of Section	Supported ICS Functional Areas	Supported NIMS Principles
Traffic Control Plans	Describes proposed detour routes and equipment needed to implement them	<ul style="list-style-type: none"> Operations Planning 	<ul style="list-style-type: none"> Management by Objectives Incident Action Planning
Equipment Staging Plan	Provides information on how needed traffic control equipment can be obtained and brought to the site	<ul style="list-style-type: none"> Logistics 	<ul style="list-style-type: none"> Comprehensive Resource Management
Communication Plan	Identifies information that needs to be communicated, how often, to whom, and by what method	<ul style="list-style-type: none"> Public Information Officer Liaison Officer 	<ul style="list-style-type: none"> Integrated Communications

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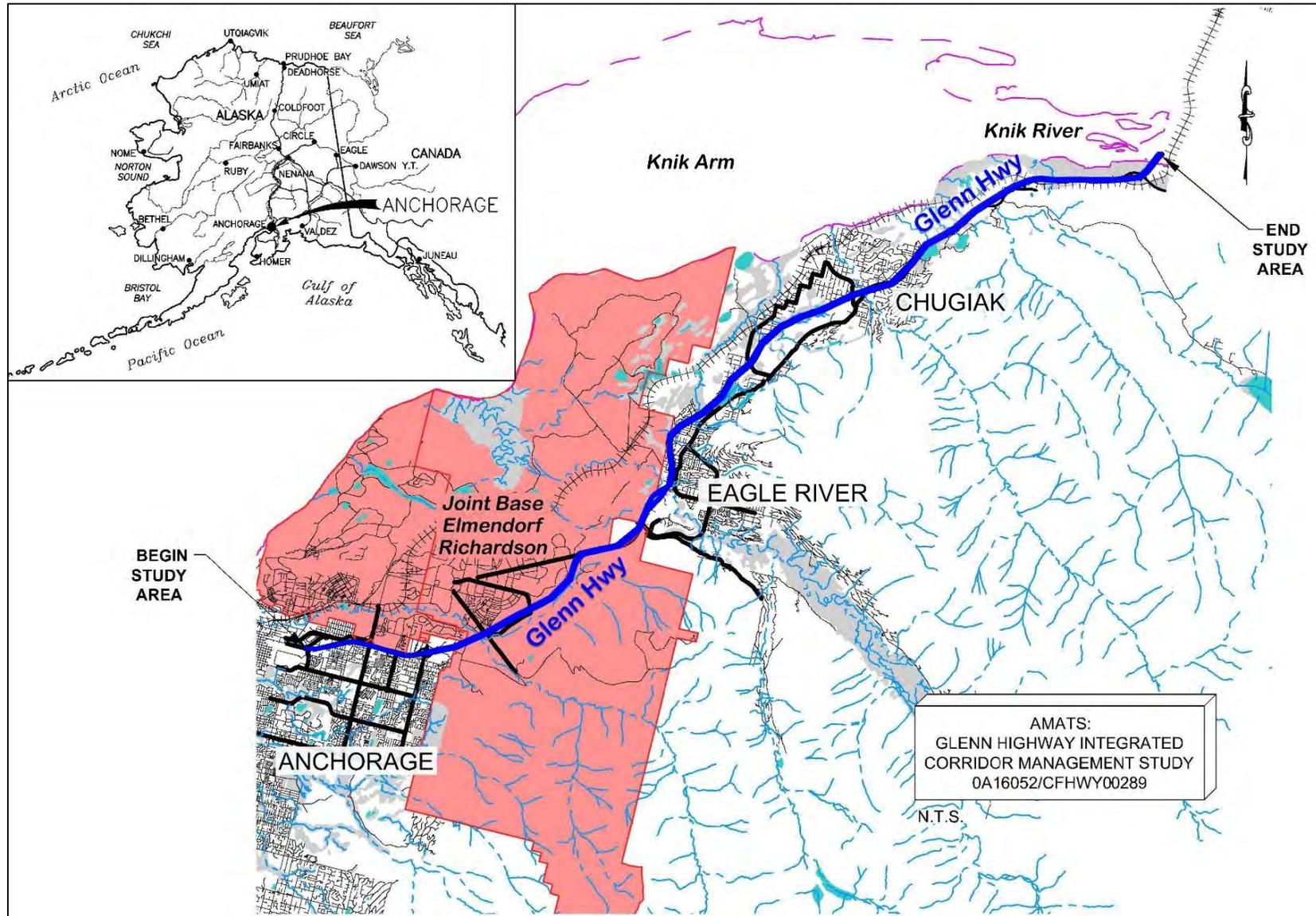


Figure 1: Vicinity Map

2 Traffic Control Plans

When an incident occurs on the Glenn Highway, traffic comes to a standstill until it can be rerouted. For short term incidents or incidents where minimal traffic disruption is anticipated, traffic control is usually handled by the Anchorage Police Department (APD) and a contractor through the Municipality of Anchorage. These traffic control plans are intended to be used by DOT&PF during incidents where significant traffic disruption is anticipated to aid the incident management team in setting up effective traffic control, including identifying the number and type of equipment that will be needed. The plans also identify the expected effect of the detour on traffic flow, and suggest long-term strategies that could improve the capacity of the detour.

The traffic control plans address a range of specific circumstances where at least one direction of the Glenn Highway is anticipated to be closed during a commute period, or for 12 hours or more on a weekend. Where available, the plans provide detour routes, capacity information, and traffic control guidelines using existing infrastructure. The plans also provide plans for detour routes that would require additional infrastructure (such as median crossovers) that could be built to provide additional capacity.

Sheets	Description	Intended User
D: General Details	Generally applicable detour route traffic control details	<ul style="list-style-type: none"> • DOT&PF Maintenance and Operations or their contractor
I: Interchange Closures	TCPs for closures of each interchange structure in the corridor.	<ul style="list-style-type: none"> • DOT&PF Maintenance and Operations or their contractor
J: Segment Closures	TCPs for closures that occur in each segment of the corridor (between interchanges). Includes detail sheets showing traffic control at intersections along the detour route.	<ul style="list-style-type: none"> • DOT&PF Maintenance and Operations or their contractor
TJ: Segment Traffic Route Analysis	Information regarding the capacity of proposed segment detour routes. Intended to help develop messaging to the public, other agencies, and elected officials.	<ul style="list-style-type: none"> • DOT&PF Traffic • Public Information Officer • Liaison Officer

In some cases, additional capacity could be achieved in the commute direction by running commute traffic on the main highway and detouring traffic in the opposite direction on parallel routes. If the closure lasts through more than one commute, the detour routes could be changed

by time of day. The following example shows how the J and TJ sheets can be used to determine optimal routing by time of day.

Example

An incident affecting the southbound lanes of the Glenn Highway between the N Eagle River Interchange and the S Birchwood Interchange occurs at 1 PM on a Wednesday evening. Police set up a detour route for the southbound traffic using the existing infrastructure.

1 PM (Wednesday) to 6 AM (Thursday):

	Detour Route to Use	Traffic Demand Reduction Needed (sheet TJ 10.0)
Northbound	Glenn Highway northbound lanes	0%
Southbound	Existing Road Network (solid blue detour, sheet J10.2)	0%

Assuming a temporary crossover cannot be built in less than 24 hours, southbound traffic must continue to use the existing road network during the morning commute (7 AM Thursday to 9 AM Thursday), resulting in the need to reduce the number of commuters on Thursday morning:

	Detour Route to Use	Traffic Demand Reduction Needed (sheet TJ 10.0)
Northbound	Glenn Highway northbound lanes	0%
Southbound	Existing Road Network (solid blue detour, sheet J10.2)	65%

Traffic continues using this detour plan until temporary crossovers can be built.

Example (continued)

After crossover infrastructure is built, the following schedule is used until southbound lanes can be reopened:

Off peak:

	Detour Route to Use	Traffic Demand Reduction Needed (sheet TJ 10.0)
Northbound	Glenn Highway, 1 northbound lane	0%
Southbound	Temporary Infrastructure, 1 southbound lane	0%

Morning commute (7 AM to 9 AM):

	Detour Route to Use	Traffic Demand Reduction Needed (sheet TJ 10.0)
Northbound	Existing Road Network (solid green detour, sheet J10.1)	0%
Southbound	Temporary Infrastructure (dotted blue detour, sheet J10.2)	0% (using two lanes)

Evening commute (4 PM to 7 PM):

	Detour Route to Use	Traffic Demand Reduction Needed (sheet TJ 10.0)
Northbound	Glenn Highway, 2 northbound lanes	0%
Southbound	Existing Road Network (solid blue detour, sheet J10.2)	0%

3 Equipment Staging Plan

When an incident occurs on the Glenn Highway, traffic control equipment is needed to establish an effective detour route, heavy equipment may be needed for clean up or construction, and material may be needed to construct emergency infrastructure (such as cross-over points). During large-scale events, additional personnel may be needed.

Table 1. Equipment Staging Plan

Temporary traffic control equipment
Signs, changeable message boards, warning devices, channelizing devices, lights, etc. are used to warn traffic of hazardous conditions and to help drivers navigate a detour route.
These devices can be obtained from: <ul style="list-style-type: none">• Anchorage maintenance station (DOT&PF)• Palmer maintenance station at 289 Inner Springer Road (DOT&PF)• MOA traffic control contract• Traffic Control contractors (would require contract)
Heavy machinery
Heavy machinery may be needed to clean up a damaged site or to construct temporary infrastructure or to perform repairs.
Heavy machinery may be available from: <ul style="list-style-type: none">• Anchorage maintenance station (DOT&PF)• Palmer maintenance station at 289 Inner Springer Road (DOT&PF)• Birchwood Airport (most available heavy equipment is dedicated to the airport due to the funding source, but DOT&PF could request permission to use this equipment in an emergency)• Construction contractors (would require contract)

Table 1. Equipment Staging Plan (continued)

Fill, Borrow, and Surface Course Material
Emergency construction may require fill, borrow, and surface course material
These materials may be obtained from: <ul style="list-style-type: none"> • Construction contractors (would require contract) • Local stockpiles (Anchorage Sand & Gravel or Granite Construction, for example) • DOT&PF stockpiles
Note that the availability of material may depend significantly on the time of year as in the winter, stockpiles may be frozen and therefore inaccessible. On the other hand, in the winter it might be possible to freeze water in place to strengthen weaker materials. For surface course material, consideration could be given to obtaining materials such as perforated steel planking (Marston matting) or other heavy-duty matting material to provide a surface course that would be readily available at all times of the year to use as a temporary surface course. Geogrid may also be useful.
Personnel Beyond Local Resources
Additional personnel may be needed during an emergency to supplement local DOT&PF personnel. For example, during an emergency in the winter, personnel may be needed to plow and treat the roadways at the same time as personnel are needed for clean up and construction activities related to the incident.
Sources of additional personnel: <ul style="list-style-type: none"> • Construction contractors • DOT&PF personnel from other regions

Table 2. Other Equipment or Data

Bailey bridges
DOT&PF owns three Bailey bridges that are used in construction projects from time to time. Consideration should be given to strategically locating one of them in Palmer when they are not in use elsewhere, to allow it to be deployed if needed in an emergency in the Anchorage area.
Survey data
Updated Lidar data could be useful for identifying changed conditions <ul style="list-style-type: none"> • USGS may be available to fly planes to collect updated data • Drones
Communication equipment
<ul style="list-style-type: none"> • All maintenance trucks have Alaska Land Mobile Radio devices • DOT&PF Maintenance additionally has 6 hand-held LMR devices

4 Communication Plan

When an incident occurs on the Glenn Highway, certain information needs to be communicated to a variety of people. The purpose of this Communication Plan is to identify:

- Who is responsible for communicating the information regarding the delays on the highway?
- What is the message that needs to be conveyed?
- How will the message be disseminated?
- When, or how frequently, will the message be issued?

The above steps will vary depending on the expected length of the delay and to who the message is being sent.

4.1 Incident Management Team

When an event occurs on the Glenn Highway that involves DOT&PF infrastructure, APD notifies DOT&PF of the incident and DOT&PF convenes an Incident Management Team in accordance with the Incident Command System (ICS) structure. DOT&PF's Incident Field Operations Guide is kept in all DOT&PF vehicles and many offices. Appendix A describes the ICS structure in detail. Most frequently, the Incident Management team will be made up of staff members who will be performing duties that are directly related to their duties under normal operations.

When DOT&PF does not have the resources to handle the response on their own, a Unified Command is established, including as many jurisdictions or agencies as are required. This organizational structure allows all the involved agencies/jurisdictions to work together effectively, without affecting the authority, responsibility, or accountability of their organization.

The ICS structure provides for personnel who are tasked with communicating with the stakeholders. In the Incident Field Operations Guide, Section 7 and Appendix C give office, fax, and cell numbers for many of the agencies/ jurisdictions/ non-governmental organizations who will need to be coordinated with.

4.2 Communication Stakeholders

In addition to the Incident Management Team, there are numerous groups that need to be informed when a delay may be encountered on the Glenn Highway. The largest group is the **public**, particularly members of the public that travel on the Glenn Highway. But the public also includes anyone impacted by an incident on the Glenn Highway, such as employers, child care centers, area businesses, and schools.

Another broad group of stakeholders are the **agencies** whose operations will be impacted by a delay on the highway. These include the Anchorage School District (ASD), Joint Base Elmendorf Richardson (JBER), Municipality of Anchorage (MOA), and the State of Alaska Department of Administration.

Elected officials at both the State and local levels want to be kept informed as they often get calls from constituents regarding delays on the Glenn Highway. Table 3 identifies the elected officials to be notified.

Table 3: Elected officials to be notified for Glenn Highway events

Local	House District	Senate District
Mayor of Anchorage	7 (Greater Wasilla) 8 (Big Lake/Point Mackenzie)	D
Anchorage Assembly	11 (Greater Palmer) 12 (Chugiak/Gateway)	F
	13 (Fort Richardson/N. Eagle River) 14 (Eagle River/Chugach State Park)	G
	15 (Elmendorf) 16 (College Gate)	H
	19 (Mountain View) 20 (Downtown Anchorage)	J

4.3 Communication Leaders

The two parties responsible for communicating delays on the Glenn Highway to the public are Anchorage Police Department (APD) Dispatch and the DOT&PF Media Liaison. For more complex incidents, APD’s Communications Director may get involved.

4.4 Methods of Communication

A variety of communication methods need to be used to reach the greatest number of people. As part of Phase I of the Integrated Corridor Management Study, the public was asked to participate in an online survey between February and April 2018. One of the questions asked was where people get information about traffic conditions on the Glenn Highway. The choices available were: Glenn Highway Traffic Report Facebook page, Radio, 511, Nixle, Twitter, and Other. There were 7,074 responses to this questions, as respondents were able to select all that apply. Figure 2 illustrates the answers received to this question.

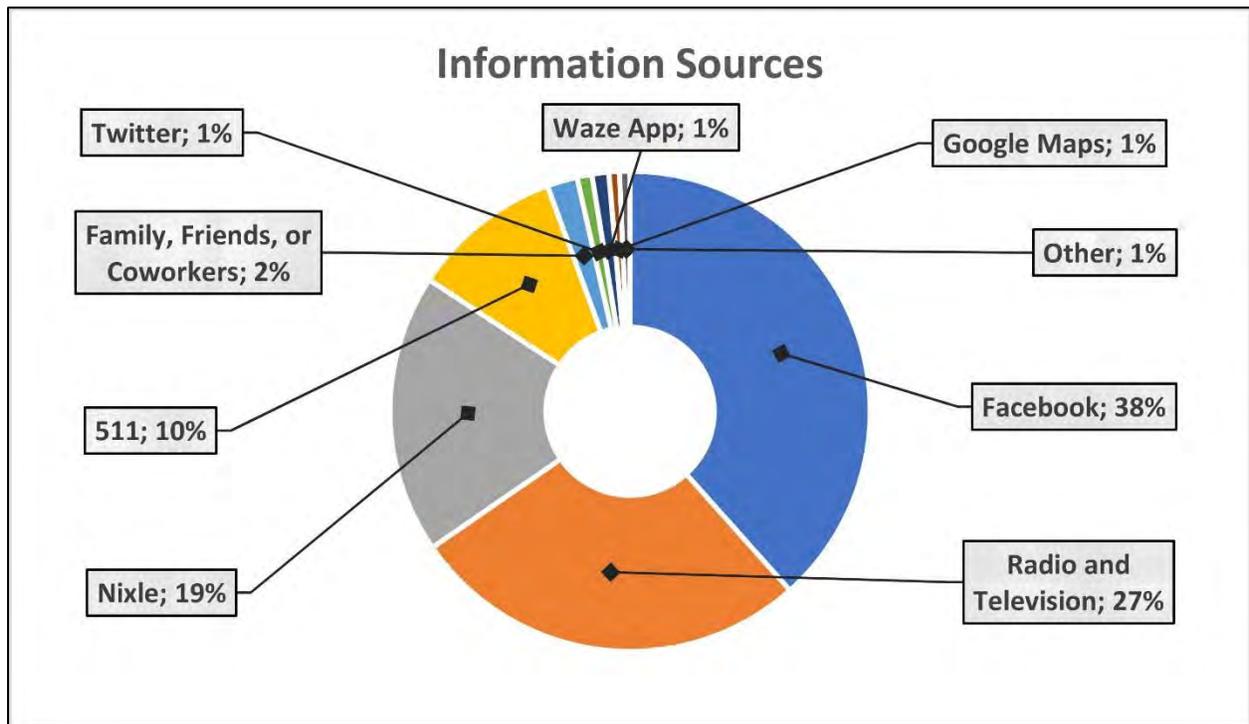


Figure 2: Sources of Information reported by the Public (February to April 2018)

The top four radio stations given for traffic information were AM 750, AM 650, FM 106.5, and FM 104, as shown in Table 4.

Table 4: Radio Stations listed as Information Sources by the Public

Radio Station	Responses	Radio Station	Responses
AM 750	113	FM 100.9	48
AM 650	99	FM 100.5	42
FM 106.5	95	FM 99.7	40
FM 104.1	94	FM 98.9	37
FM 107.5	72	FM 92.1	24
FM 101.3	71	FM 97.3	24
FM 91.1	66	AM 700	20
FM 103.1	65	Other Stations	144
		Total	1054

4.4.1 Nixle

Nixle is the communication tool used by APD to send messages to the public. Individuals sign up to receive Nixle alerts via email and/or text message. APD Dispatch can quickly send out notices when there is an incident on the Glenn Highway. In situations where a lane or road is closed, APD also sends a notice when the incident is cleared and all lanes or roads are open. Nixle alerts are also posted on APD's social media feeds. DOT&PF does not have access to Nixle and relies on APD Dispatch to send out alerts.

4.4.2 511

In 2000, the FCC designated the phone number 511 as a nation-wide three-digit telephone number for traveler information. The system is implemented locally by states and local agencies. In Alaska, the 511 system has been expanded to include a website and text or email alerts, in addition to the phone system. DOT&PF manages the 511 system statewide and is responsible for maintaining the information on it. To ensure traffic information is posted quickly, DOT&PF has partnered with APD Dispatch. When APD sends a Nixle alert with specific key words related to traffic closures and DOT&PF roadways, the alert is automatically relayed through 511. Travelers can also access road construction and weather related information using 511.

4.4.3 Social Media

Currently, DOT&PF and APD use Facebook, Twitter, and Instagram to communicate to the public. Nixle alerts are posted on APD's feeds. DOT&PF uses social media to post information about Department events and safety tips, as well as traffic alerts. Members of the public sign up to follow APD and DOT&PF on these various outlets and can also access them through their websites.

The Glenn Highway Traffic Report Facebook page is a closed group with over 38,000 members. Individuals must request to join the group and only members of the group can post to the page or see other's posts. It is administered and moderated by private citizens. Members of the group post information about traffic conditions and travel times and DOT&PF's Facebook posts about delays on the highway are re-posted by the administrators. Posts on the page are deleted on a regular basis. According to the survey results, it is the most popular method people use to find out about traffic conditions on the Glenn Highway.

4.4.4 Media Outlets

Traditional media outlets include radio, television, and newspaper. Each outlet has a procedure for receiving news and information. APD and DOT&PF have designated public relations people that are responsible for communicating with the media.

4.4.5 Email

Email is an efficient way to get information quickly distributed to a large number of people. Nixle messages are sent via email to subscribers. DOT&PF also sends email messages to people who have signed up to receive news and updates through GovDelivery. (Subscribers can also elect to receive GovDelivery messages via text).

4.4.6 Changeable Message Sign

There is a large changeable message sign (CMS) northbound on the Glenn Highway at approximately MP 7. APD has the primary responsibility of posting messages on the sign, but DOT&PF's Media Liaison can also post. APD and DOT&PF coordinate on the messaging and follow specific guidelines. Currently, one of the rows of bulbs on the sign is not working which limits all messages to only two lines of text.

4.4.7 Incident Website

When an incident is going to impact travel conditions for longer than 12 hours, DOT&PF develops a website. The website allows up to date information to be shared, as well as serving as a repository for all information shared with the public. Background material and detailed information (for example, detour maps) can also be posted. The URL should be provided with the messages sent through other means of communication.

4.5 Communication Action Plan

Table 5 summarizes the who, what, how, and when for communications regarding delays on the Glenn Highway under various scenarios.

Table 5: Communication Action Plan

Anticipated Length of Closure: Less than 4 hours			
Potential causes for a closure of this length are crashes, rollovers, wildlife collisions.			
Communication Lead	Message	Method	Timing
APD Dispatch	Warning of the incident. Alert drivers to use caution.	Nixle	At the beginning and end of event.
Anticipated Length of Closure: 4 - 8 hours			
Potential causes for a closure of this length are multi-vehicle crashes, potentially with major injuries.			
Communication Lead	Message	Method	Timing
APD Dispatch (Notify DOT&PF Media Liaison if the closure will be during peak hours)	Warning of the incident. Alert drivers to use caution. Estimate time of closure, if possible.	Nixle 511 Email*	At the beginning and end of event. Update every 3-4 hours.
* DOT&PF Media Liaison to email elected officials if incident occurs during peak hours.			
Anticipated Length of Closure: 8-12 hours			
Potential causes for a closure of this length are multi-vehicle crashes, potentially with major injuries or fatality; hazardous material spill.			
Communication Lead	Message	Method	Timing
DOT&PF Media Liaison (Notify Incident Management Team Leader)	Warning of the incident. Alert drivers to use caution. Estimate time of closure, if possible. Suggest staying off the road.	Nixle 511 Media Email Social Media	At the beginning and end of event. Update every 3-4 hours.
DOT&PF Media Liaison to email elected officials.			
Anticipated Length of Closure: 12-24 hours			
Potential causes for a closure of this length are fatal crashes, hazardous material spill, damaged infrastructure, police activity.			
Communication Lead	Message	Method	Timing
DOT&PF Media Liaison (Notify Incident Management Team Leader)	Warning of the incident. Alert drivers to use caution. Estimate time of closure, if possible. Detours in place. Stay off the road if at all possible.	Nixle 511 Media Social Media Email Incident Website	At the beginning and end of event. Update every 3-4 hours.
DOT&PF Media Liaison to email elected officials.			
For incidents of this length, the Incident Management Team will be convened. Representatives of the IMT will be responsible for communicating to their organization.			

Table 5: Communication Action Plan (continued)

Anticipate Length of Closure: More than 1 day Potential cause for a closure of this length is damaged infrastructure that must be repaired prior to opening the roadway. Temporary infrastructure may need to be constructed.			
Communication Lead	Message	Method	Timing
DOT&PF Media Liaison (Notify Incident Mgmt Team Leader)	Warning of the incident. Alert drivers to use caution. Estimate time of closure, if possible. Detours in place. Stay off the road if at all possible. Encourage employers to allow employees to stay home. Close schools as necessary.	Nixle 511 Media DOT&PF Social Media Email Incident Website	At the beginning and end of event. Update every 4 hours.
DOT&PF Media Liaison to email elected officials and provide regular updates.			
For incidents of this length, the Incident Management Team will be convened. Representatives of the IMT will be responsible for communicating to their organization.			

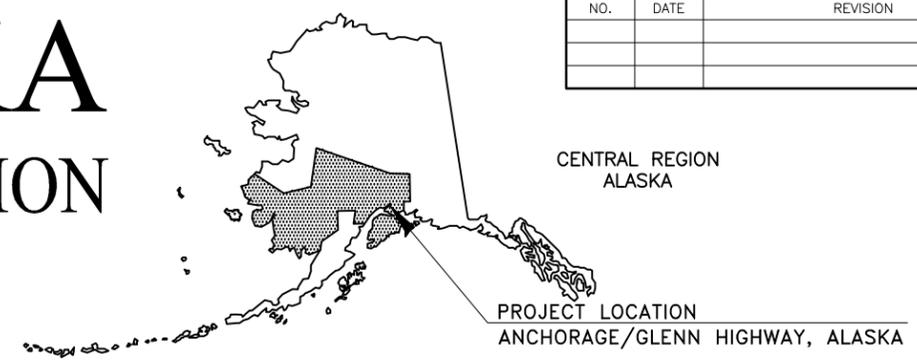
Appendix A: Traffic Control Plans

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL 'A' SHEETS
			ALASKA	OA16052/CFHWY00289	2019	A1	A2
						PLAN SET TOTAL	123

STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES



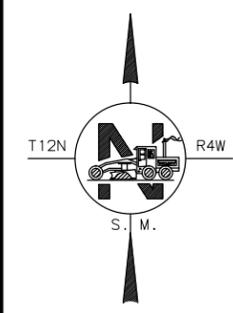
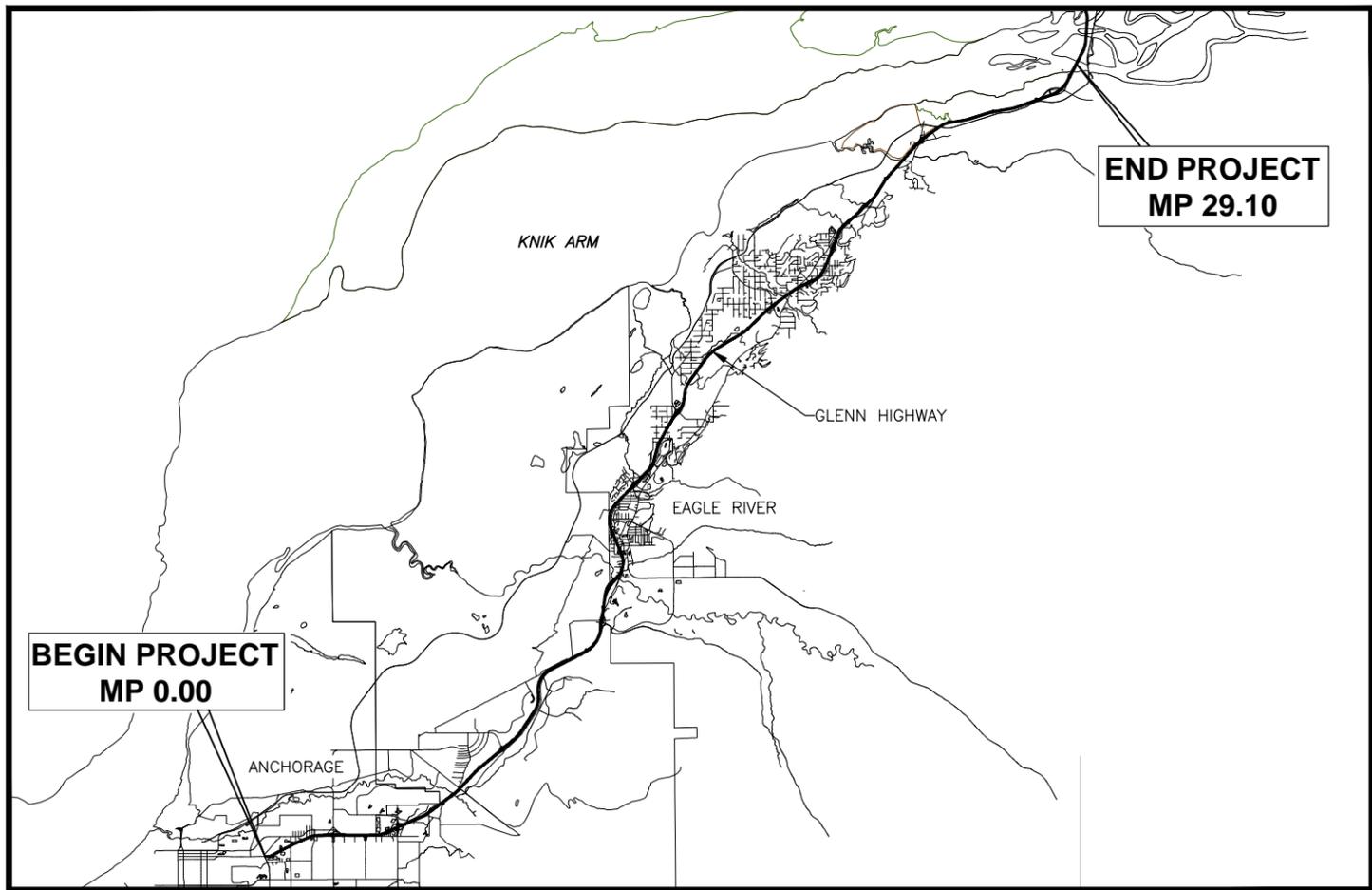
INDEX	
SHEET NO.	DESCRIPTION
A1	COVER SHEET
A2	DETAILED INDEX OF SHEETS
D1-D4	GENERAL DETAILS
I1-I14-Q	INTERCHANGE TRAFFIC CONTROL PLANS
J1.1-J17-Q	SEGMENT TRAFFIC CONTROL PLANS

PROPOSED HIGHWAY PROJECT

GLENN HIGHWAY INTEGRATED CORRIDOR MANAGEMENT (ICM) STUDY - PHASE II

PROJECT NO. OA16052/CFHWY00289

TRAFFIC CONTROL PLANS



PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
 4111 AVIATION AVENUE, ANCHORAGE, AK 99502
 (907)269-0590

APPROVED:

REGIONAL PRE-CONSTRUCTION ENGINEER _____ DATE _____

CONCUR:

REGIONAL CONSTRUCTION ENGINEER _____ DATE _____

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	A2	A2

INTERCHANGE TRAFFIC CONTROL PLAN INDEX	
SHEET NO.	DESCRIPTION
11	BRAGAW
11-Q	BRAGAW QUANTITIES
12	BONIFACE
12-Q	BONIFACE QUANTITIES
13	MULDOON
13-Q	MULDOON QUANTITIES
14	JBER-RICHARDSON
14-Q	JBER-RICHARDSON QUANTITIES
15	EAGLE RIVER LP RD/HILAND
15-Q	EAGLE RIVER LP RD/HILAND QUANTITIES
16	EAGLE RIVER/ARTILLERY
16-Q	EAGLE RIVER/ARTILLERY QUANTITIES
17	N EAGLE RIVER
17-Q	N EAGLE RIVER QUANTITIES
18	S BIRCHWOOD
18-Q	S BIRCHWOOD QUANTITIES
19	N BIRCHWOOD
19-Q	N BIRCHWOOD QUANTITIES
110	PETERS CREEK
110-Q	PETERS CREEK QUANTITIES
111	N PETERS CREEK
111-Q	N PETERS CREEK QUANTITIES
112	MIRROR LAKE
112-Q	MIRROR LAKE QUANTITIES
113	EKLUTNA
113-Q	EKLUTNA QUANTITIES
114	OLD GLENN HWY
114-Q	OLD GLENN HWY QUANTITIES

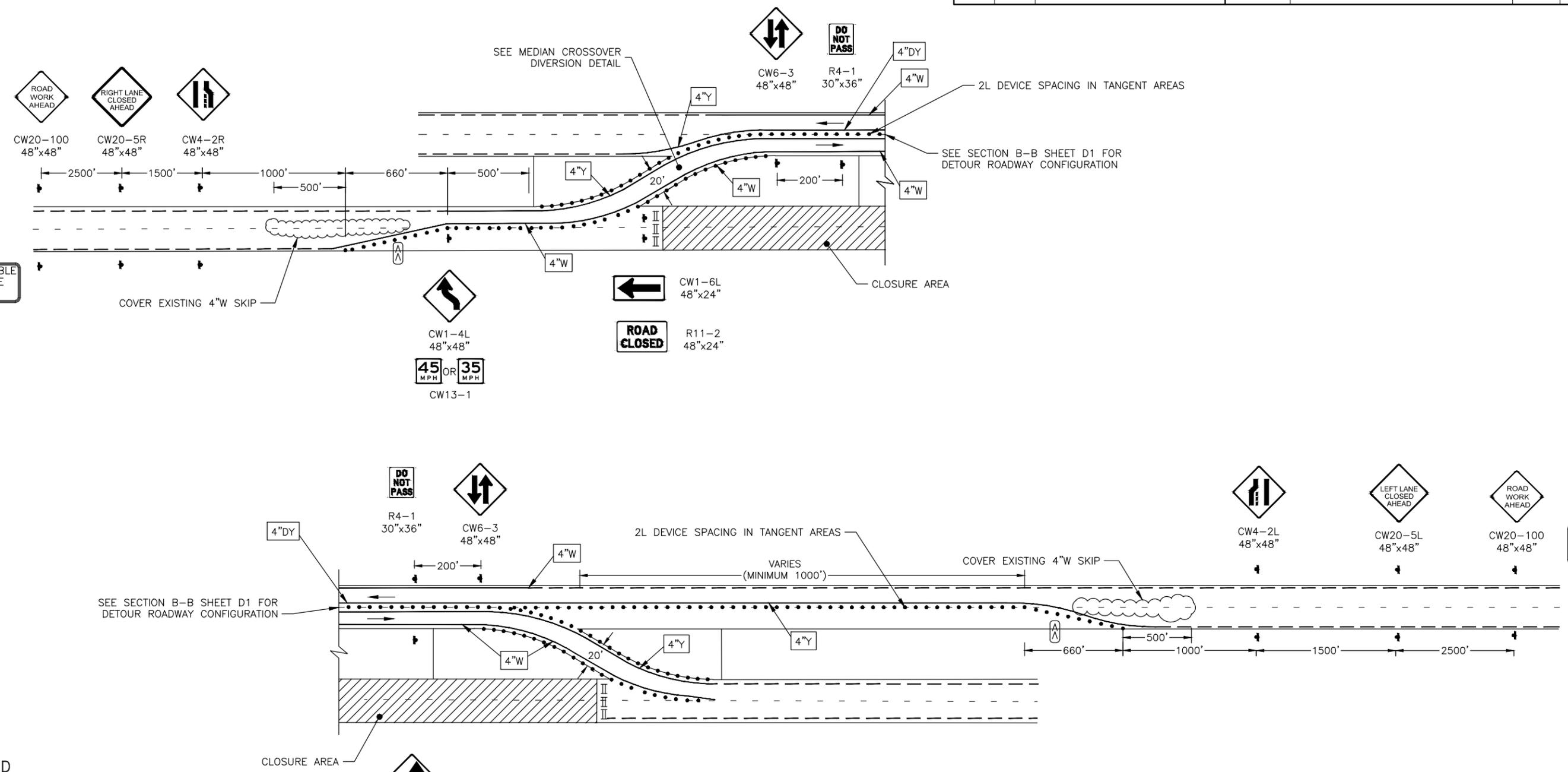
SEGMENT TRAFFIC CONTROL PLAN INDEX	
SHEET NO.	DESCRIPTION
J1	AIRPORT HEIGHTS TO BRAGAW
.1	NORTHBOUND CLOSURE
.2	SOUTHBOUND CLOSURE
.3	FULL CLOSURE
A	CLOSURE DETAILS
Q	QUANTITIES
J2	BRAGAW TO BONIFACE
.1	NORTHBOUND CLOSURE
.2	SOUTHBOUND CLOSURE
.3	FULL CLOSURE
A	CLOSURE DETAILS
Q	QUANTITIES
J3	BONIFACE TO MULDOON
.1A	BONIFACE PKWY TO TURPIN ST NORTHBOUND CLOSURE
.1B	TURPIN ST TO MULDOON RD NORTHBOUND CLOSURE
.2	SOUTHBOUND CLOSURE
.3A	BONIFACE PKWY TO TURPIN ST FULL CLOSURE
.3B	TURPIN ST TO MULDOON RD FULL CLOSURE
A	CLOSURE DETAILS
Q	QUANTITIES
J4	MULDOON TO ARCTIC VALLEY
.1	NORTHBOUND CLOSURE
.2	SOUTHBOUND CLOSURE
.3	FULL CLOSURE
Q	QUANTITIES
J5	ARCTIC VALLEY TO JBER-RICHARDSON
.1	NORTHBOUND CLOSURE
.2	SOUTHBOUND CLOSURE
.3	FULL CLOSURE
A	CLOSURE DETAILS
Q	QUANTITIES
J6	JBER-RICHARDSON TO WEIGH STATION
.1	NORTHBOUND CLOSURE
.2	SOUTHBOUND CLOSURE
.3	FULL CLOSURE
A	CLOSURE DETAILS
Q	QUANTITIES
J7	WEIGH STATION TO EAGLE RIVER LP RD/HILAND
.1	NORTHBOUND CLOSURE
.2	SOUTHBOUND CLOSURE
.3	FULL CLOSURE
Q	QUANTITIES
J8	EAGLE RIVER LP RD/HILAND TO EAGLE RIVER/ARTILLERY
.1A	NORTHBOUND CLOSURE
.1B	NORTHBOUND CLOSURE ALTERNATE
.2	SOUTHBOUND CLOSURE
.3A	FULL CLOSURE
.3B	FULL CLOSURE ALTERNATE
A	CLOSURE DETAILS
B	CLOSURE DETAILS
Q	QUANTITIES
J9	EAGLE RIVER/ARTILLERY TO N EAGLE RIVER
.1	NORTHBOUND CLOSURE
.2	SOUTHBOUND CLOSURE
.3	FULL CLOSURE
A	CLOSURE DETAILS
Q	QUANTITIES
J10	N EAGLE RIVER TO S BIRCHWOOD
.1	NORTHBOUND CLOSURE
.2	SOUTHBOUND CLOSURE
.3	FULL CLOSURE
A	CLOSURE DETAILS
Q	QUANTITIES

SEGMENT TRAFFIC CONTROL PLAN INDEX (CONT'D)	
SHEET NO.	DESCRIPTION
J11	S BIRCHWOOD TO N BIRCHWOOD
.1	NORTHBOUND CLOSURE
.2	SOUTHBOUND CLOSURE
.3	FULL CLOSURE
A	CLOSURE DETAILS
Q	QUANTITIES
J12	N BIRCHWOOD TO PETERS CREEK
.1	NORTHBOUND CLOSURE
.2	SOUTHBOUND CLOSURE
.3	FULL CLOSURE
A	CLOSURE DETAILS
B	CLOSURE DETAILS
Q	QUANTITIES
J13	PETERS CREEK TO N PETERS CREEK
.1	NORTHBOUND CLOSURE
.2	SOUTHBOUND CLOSURE
.3	FULL CLOSURE
A	CLOSURE DETAILS
B	CLOSURE DETAILS
Q	QUANTITIES
J14	N PETERS CREEK TO MIRROR LAKE
.1	NORTHBOUND CLOSURE
.2	SOUTHBOUND CLOSURE
.3	FULL CLOSURE
A	CLOSURE DETAILS
B	CLOSURE DETAILS
Q	QUANTITIES
J15	MIRROR LAKE TO THUNDERBIRD EXIT
.1	NORTHBOUND CLOSURE
.2	SOUTHBOUND CLOSURE
.3	FULL CLOSURE
Q	QUANTITIES
J16	THUNDERBIRD EXIT TO EKLUTNA
.1	NORTHBOUND CLOSURE
.2	SOUTHBOUND CLOSURE
.3	FULL CLOSURE
A	CLOSURE DETAILS
Q	QUANTITIES
J17	EKLUTNA TO OLD GLENN HIGHWAY
.1	NORTHBOUND CLOSURE
.2	SOUTHBOUND CLOSURE
.3	FULL CLOSURE
Q	QUANTITIES

<p>STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES</p> <p>AMATS: GLENN HIGHWAY INTEGRATED CORRIDOR MANAGEMENT (ICM) STUDY - PHASE II</p> <p>INDEX OF SHEETS</p>	<p>PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 348-2373 CERT. OF AUTH. NO. AECL 1102</p>
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	D2	D4

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LEGEND

- ▬ SIGN
- II TYPE III BARRICADE
- DRUMS OR CHANNELIZING DEVICES AT 45' SPACING FOR 45 MPH AND 35' SPACING FOR 35 MPH. SEE TRAFFIC CONTROL SETUP NOTE 8.
- ▭ SEQUENTIAL ARROW PANEL
- 4"Y 4" YELLOW TEMPORARY PAVEMENT MARKINGS*
- 4"W 4" WHITE TEMPORARY PAVEMENT MARKINGS*
- 4"DY 4" DOUBLE YELLOW TEMPORARY PAVEMENT MARKINGS*
- ▭ CHANGEABLE MESSAGE SIGN

* MARKINGS CAN BE PERFORMED TAPE, PAINT, OR OTHER TEMPORARY MARKINGS INCLUDING SURFACE MOUNT FLEXIBLE DELINEATORS. CONSIDER MARKING REMOVAL AND REPLACEMENT ONLY AFTER 14 DAYS.

TRAFFIC CONTROL FOR ONE LANE CROSSOVER TO THE SOUTHBOUND ROADWAY PRISM
 USE REVERSE OF THIS DETAIL FOR CROSSOVER TO THE NORTHBOUND ROADWAY PRISM

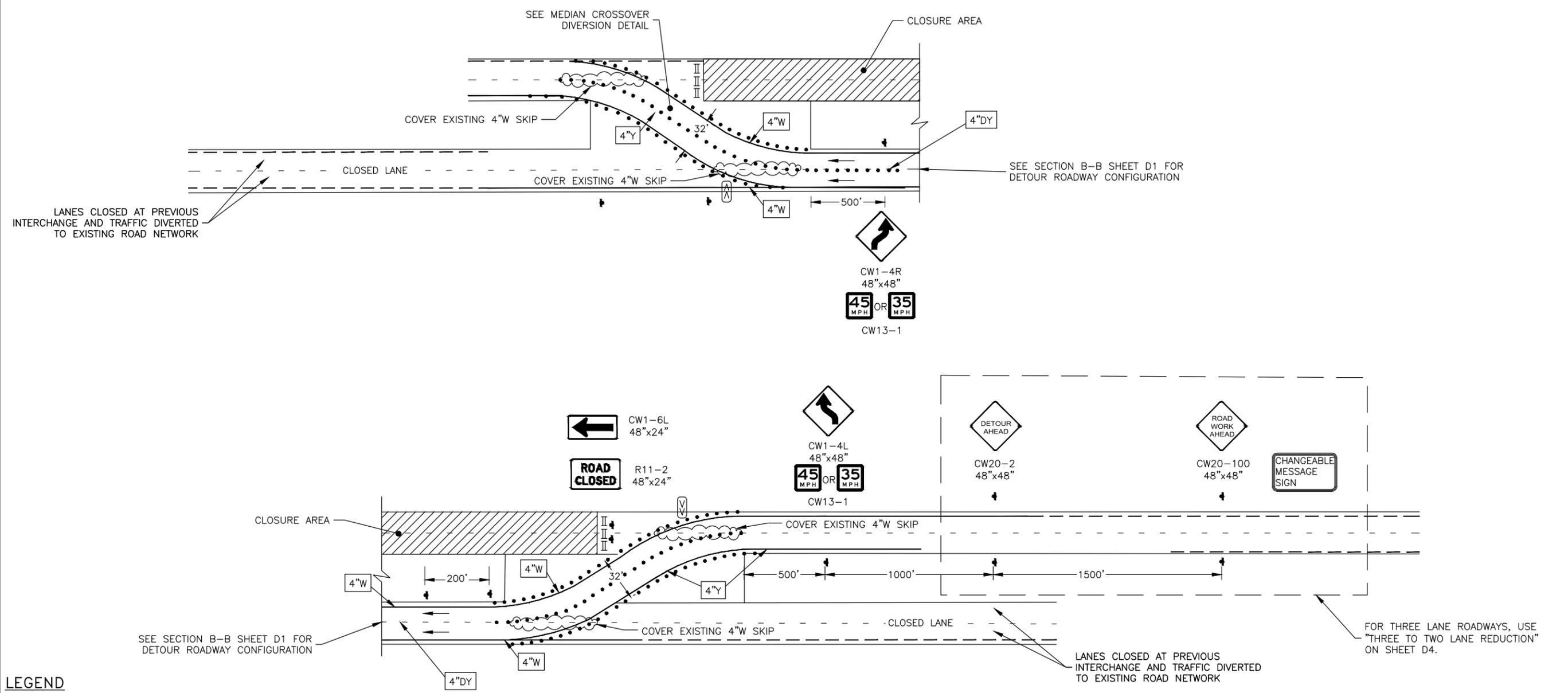
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

AMATS: GLENN HIGHWAY
INTEGRATED CORRIDOR
MANAGEMENT (ICM) STUDY
- PHASE II
TRAFFIC MAINTENANCE SETUP
CROSSOVER DIVERSION (2 OF 3)

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	D3	D4

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LEGEND

▬	SIGN
II	TYPE III BARRICADE
•	DRUMS OR CHANNELIZING DEVICES AT 45' SPACING FOR 45 MPH AND 35' SPACING FOR 35 MPH. SEE TRAFFIC CONTROL SETUP NOTE 8.
A	SEQUENTIAL ARROW PANEL
4"Y	4" YELLOW TEMPORARY PAVEMENT MARKINGS*
4"W	4" WHITE TEMPORARY PAVEMENT MARKINGS*
4"DY	4" DOUBLE YELLOW TEMPORARY PAVEMENT MARKINGS*
CHANGABLE MESSAGE SIGN	PORTABLE CHANGEABLE MESSAGE BOARD SIGN

TRAFFIC CONTROL FOR TWO LANE CROSSOVER TO THE NORTHBOUND ROADWAY PRISM

USE REVERSE OF THIS DETAIL FOR WORK CROSSOVER TO THE SOUTHBOUND ROADWAY PRISM

NOTE: THIS PLAN ACCOMMODATES TWO-LANE ONE-WAY FLOW IN THE PEAK DIRECTION. UNDER THIS PLAN, OFF-PEAK DIRECTION TRAVEL WOULD BE ROUTED TO EXISTING ROAD NETWORK AS SHOWN ON "J" SHEETS.

* MARKINGS CAN BE PREFORMED TAPE, PAINT, OR OTHER TEMPORARY MARKINGS INCLUDING SURFACE MOUNT FLEXIBLE DELINEATORS. CONSIDER MARKING REMOVAL AND REPLACEMENT ONLY AFTER 14 DAYS.

<p>PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102</p>	<p>STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES</p> <p>AMATS: GLENN HIGHWAY INTEGRATED CORRIDOR MANAGEMENT (ICM) STUDY - PHASE II TRAFFIC MAINTENANCE SETUP CROSSOVER DIVERSION (3 OF 3)</p>
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TRAFFIC CONTROL NOTES:

1. A MINIMUM OF ONE LANE SHALL BE MAINTAINED AT ALL TIMES, THROUGH ALL WORK AREAS.
2. TEMPORARY DRIVING LANES SHALL HAVE A MINIMUM WIDTH OF 10'-0".
3. WORK ZONE DOUBLE TRAFFIC FINES SIGNS MAY BE USED AS DIRECTED BY THE ENGINEER AND PER STANDARD DRAWING C-04.12.
4. MAX. CONE OR DRUM SPACING SHALL NOT EXCEED 45' ON TAPERS OR 90' ON TANGENTS.
5. 'L' DISTANCE SHALL MATCH POSTED SPEED LIMIT ON ROADWAY. SEE "TAPER LENGTHS" TABLE.

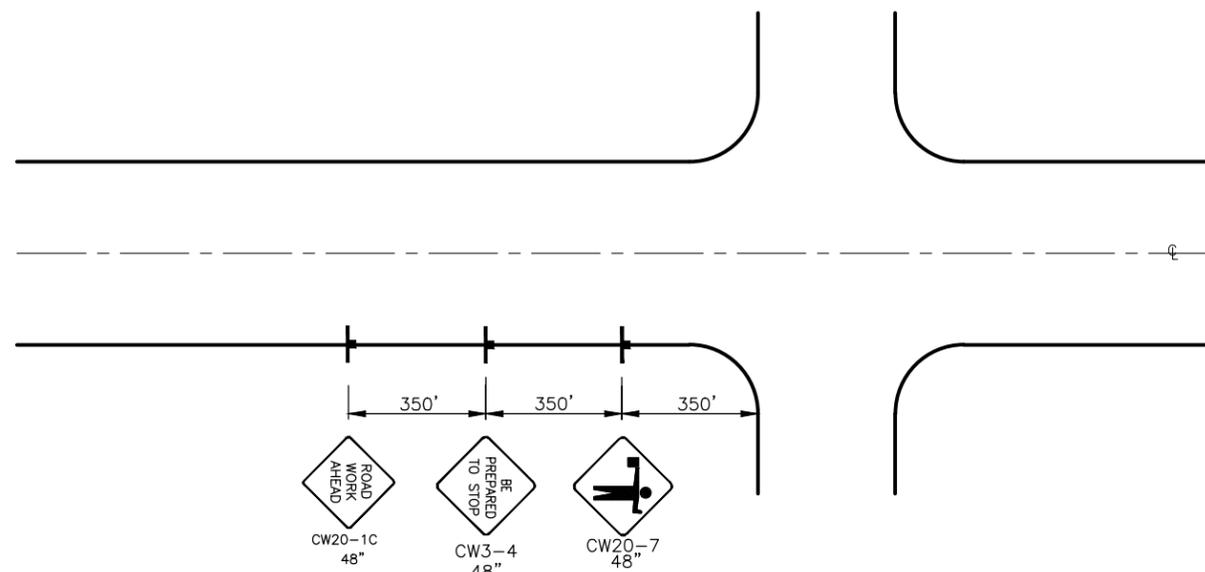
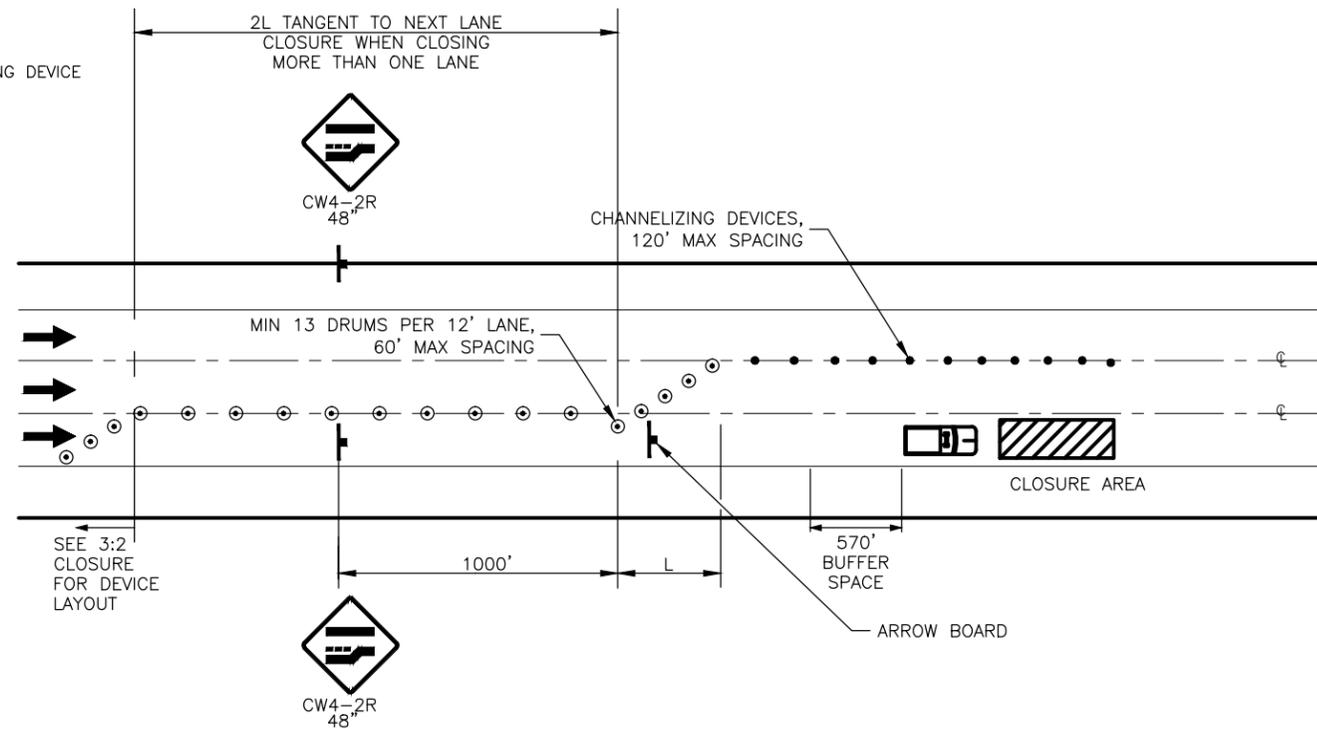
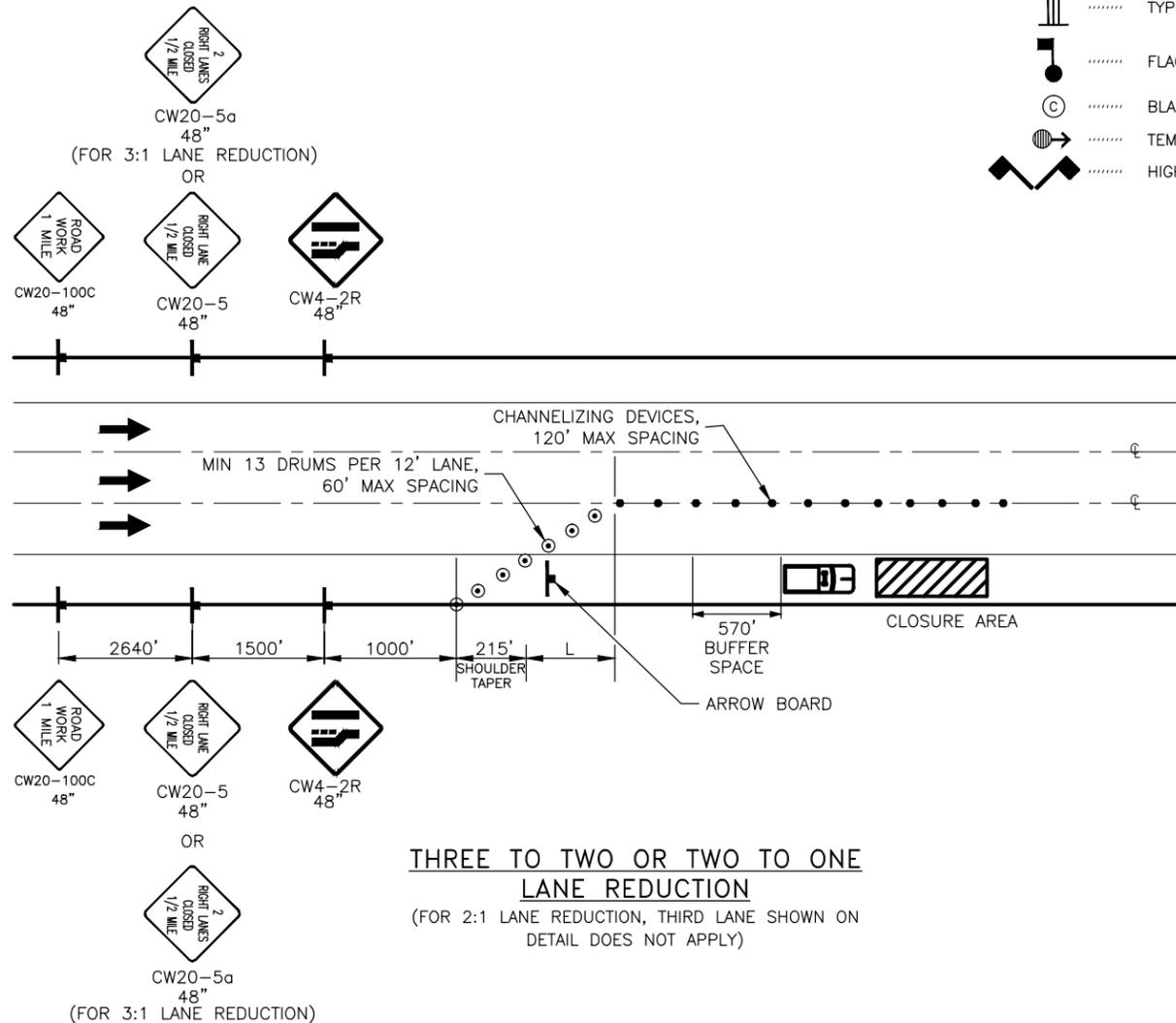
LEGEND

- SIGN
- CHANNELIZING DEVICES
- DRUM
- CONCRETE BARRIER
- WATER FILLED BARRIER
- TYPE III BARRICADE
- FLAGGING STATION
- BLASTING CAP
- TEMPORARY SIGNAL
- HIGH LEVEL WARNING DEVICE

FORMULAS FOR L (TAPER LENGTH)
 40 MPH OR LESS $L = \frac{W \times S^2}{60}$
 45 MPH OR GREATER $L = W \times S$
 WHERE W = WIDTH OF OFFSET
 S = POSTED SPEED LIMIT

TAPER LENGTHS	
SPEED	'L' DISTANCE
35 MPH	245'
45 MPH	250'
55 MPH	660'
65 MPH	780'

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	D4	D4



FLAGGER DETAIL

(USE ON ALL APPLICABLE APPROACHES WHERE FLAGGING IS REQUIRED)
 (NOT REQUIRED WHEN FLAGGED BY POLICE OFFICER)

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**AMATS: GLENN HIGHWAY
 INTEGRATED CORRIDOR
 MANAGEMENT (ICM) STUDY
 - PHASE II**

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 3909 ARCTIC BLVD, SUITE 400
 ANCHORAGE, ALASKA 99503
 (907) 348-2373
 CERT. OF AUTH. NO. AEC1 1102

LANE REDUCTION DETAILS

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	11	114-Q

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DETOUR CMS MESSAGES

- (A) GLENN HWY CLOSED AT BRAGAW/USE MT VIEW DR FOR N MT VIEW ACCESS
- (B) BRAGAW CLOSED AT GLENN HWY/USE ALTERNATE ROUTE
- (C) BRAGAW CLOSED AT GLENN HWY/FOLLOW GLENN HWY DETOUR

DETOUR NOTES

1. DURING PEAK PERIODS, TRAFFIC SIGNALS DESIGNATED TO BE PLACED IN "FLASH MODE" WILL REQUIRE FLAGGERS & FLAGGER SIGNING. SEE SHEET D4. OTHER TRAFFIC SIGNALS ALONG THE DETOUR ROUTE MAY BE PLACED ON FLASH MODE AS DIRECTED BY THE ENGINEER.

GENERAL NOTES

1. ALL SIGNS ON GLENN HWY SHALL BE "FREeway OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
2. HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
3. PLACE W3-1 SIGNS 500 FT IN ADVANCE OF R1-1 SIGNS.
4. PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.
5. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 3909 ARCTIC BLVD, SUITE 400
 ANCHORAGE, ALASKA 99503
 (907) 346-2373
 CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
**GLENN HIGHWAY
 BRAGAW INTERCHANGE
 CLOSURE**

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	11-Q	114-Q

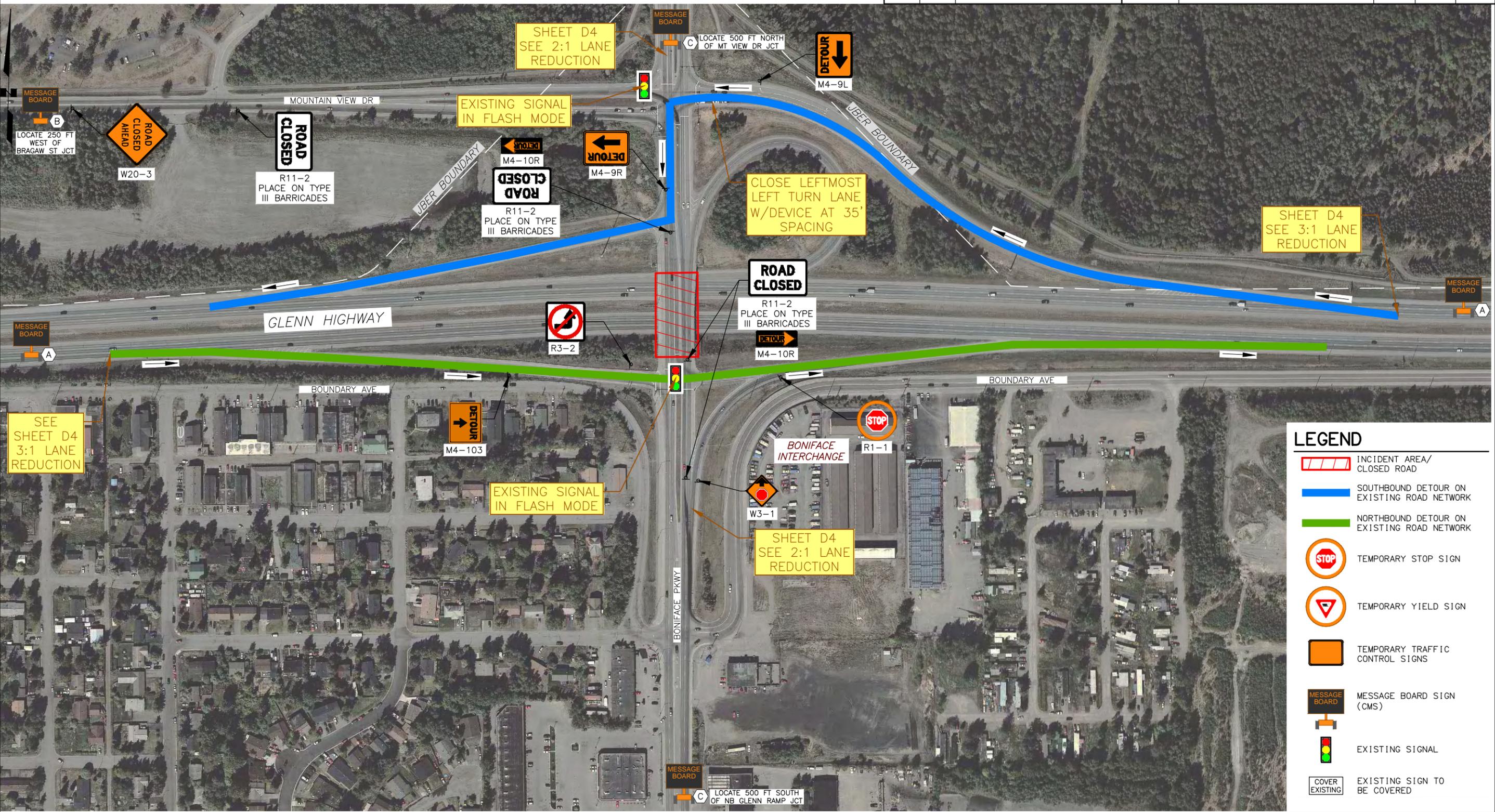
TRAFFIC CONTROL DEVICE SUMMARY: INTERCHANGE DETOURS

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	11
		QTY
ROAD CLOSED AHEAD	CW20-3	1
ROAD WORK AHEAD	CW20-1	
ROAD WORK 1 MILE	CW20-1	6
RIGHT LANE CLOSED 1/2 MILE	CW20-5	2
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A	4
RIGHT LANE CLOSED AHEAD	CW20-5R	
LEFT LANE CLOSED AHEAD	CW20-5L	
RIGHT LANE REDUCTION SYMBOL	CW4-2R	10
LEFT LANE REDUCTION SYMBOL	CW4-2L	
ROAD CLOSED	R11-2	3
LANE CLOSED	R11-102	20
DETOUR (RT)	M4-10R	1
DETOUR (LT)	M4-10L	
DETOUR MARKER (RT)	M4-9R	2
DETOUR MARKER (LT)	M4-9L	2
DETOUR (UP)	M4-103	1
DETOUR AHEAD	CW20-2	
NO RIGHT TURN	R3-1	
NO LEFT TURN	R3-2	2
STOP	R1-1	1
YIELD	R1-2	
STOP AHEAD	CW3-1	1
YIELD AHEAD	CW3-2	
RIGHT ARROW	CW1-6R	
LEFT ARROW	CW1-6L	
RIGHT TURN	CW1-1R	
LEFT TURN	CW1-1L	
REVERSE CURVE RIGHT	CW1-4R	
REVERSE CURVE LEFT	CW1-4L	
DO NOT PASS	R4-1	
TWO WAY TRAFFIC	CW6-3	
45 MPH ADVISORY	CW13-1	
35 MPH ADVISORY	CW13-1	
25 MPH ADVISORY	CW13-1	
LOCAL TRAFFIC ONLY	SPECIAL	1
TYPE III BARRICADES	-	23
DRUMS/TYPE II BARRICADES	-	176
CHANNELIZING DEVICES	-	340
ARROW BOARD	-	5
PORTABLE CONCRETE BARRIERS	-	
TEMPORARY CRASH CUSHION	-	
PORTABLE LIGHTING	-	5
CHANGEABLE MESSAGE BOARD	-	7
SURFACE MOUNT FLEXIBLE DELINEATORS	-	

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY BRAGAW INTERCHANGE QUANTITIES	PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	12	114-Q

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- DETOUR CMS MESSAGES**
- (A) BONIFACE OVERCROSSING CLOSED/FOLLOW OFF-RAMP DETOUR
 - (B) BONIFACE CLOSED AT GLENN HWY/USE BRAGAW FOR GLENN HWY ACCESS
 - (C) BONIFACE CLOSED AT GLENN HWY/FOLLOW GLENN HWY DETOUR

- DETOUR NOTES**
- DURING PEAK PERIODS, TRAFFIC SIGNALS DESIGNATED TO BE PLACED IN "FLASH MODE" WILL REQUIRE FLAGGERS & FLAGGER SIGNING. SEE SHEET D4.
 - COORDINATE WITH JBER FOR POSSIBLE BONIFACE GATE RESTRICTIONS.

- GENERAL NOTES**
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE W3-1 SIGNS 500 FT IN ADVANCE OF R1-1 SIGNS.
 - PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.
 - LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- TEMPORARY STOP SIGN
- TEMPORARY YIELD SIGN
- TEMPORARY TRAFFIC CONTROL SIGNS
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING SIGN TO BE COVERED

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY
BONIFACE INTERCHANGE
CLOSURE**

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

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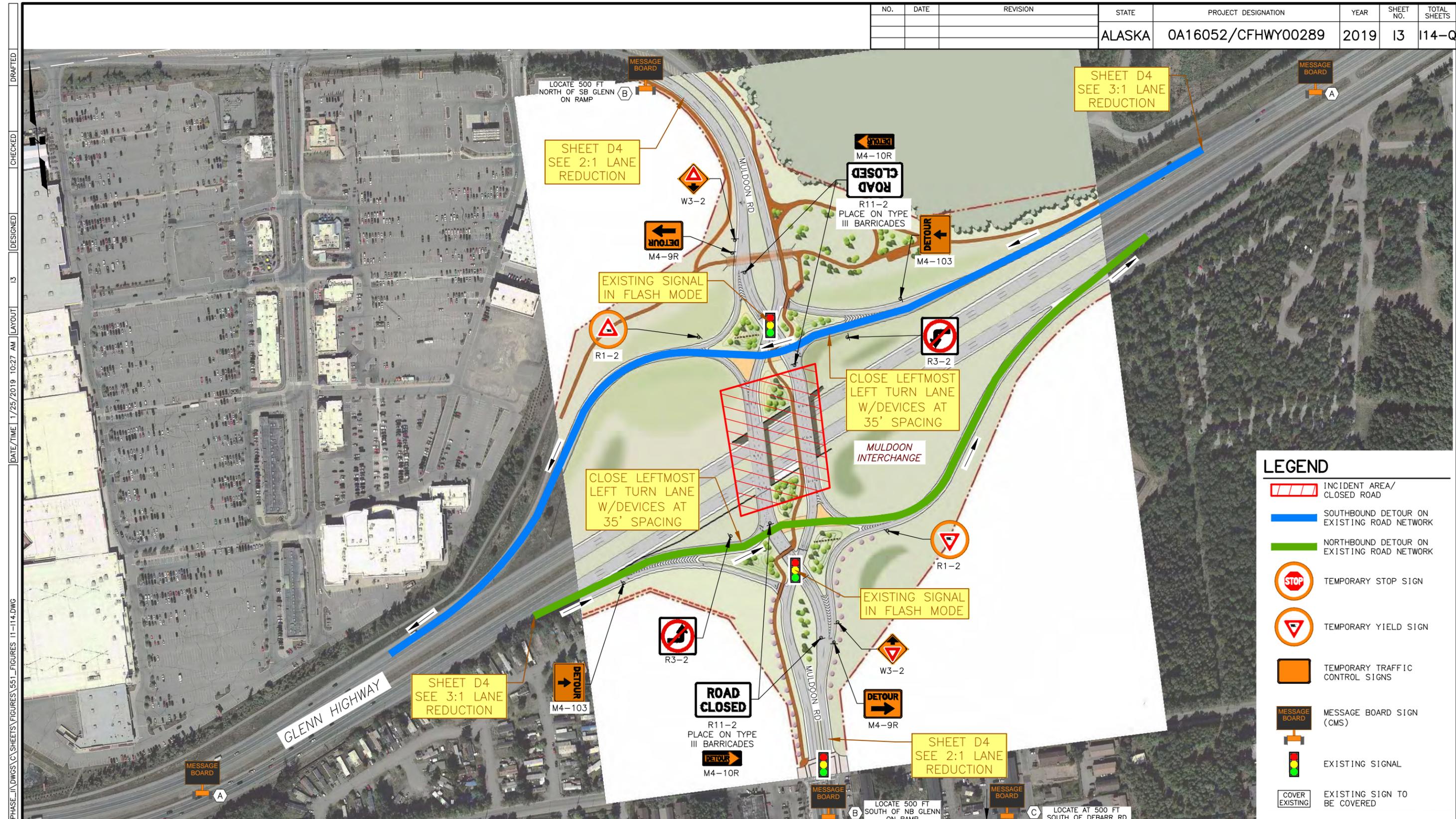
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	12-Q	114-Q

TRAFFIC CONTROL DEVICE SUMMARY: INTERCHANGE DETOURS

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	12
		QTY
ROAD CLOSED AHEAD	CW20-3	1
ROAD WORK AHEAD	CW20-1	
ROAD WORK 1 MILE	CW20-1	8
RIGHT LANE CLOSED 1/2 MILE	CW20-5	4
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A	4
RIGHT LANE CLOSED AHEAD	CW20-5R	
LEFT LANE CLOSED AHEAD	CW20-5L	
RIGHT LANE REDUCTION SYMBOL	CW4-2R	12
LEFT LANE REDUCTION SYMBOL	CW4-2L	
ROAD CLOSED	R11-2	3
LANE CLOSED	R11-102	24
DETOUR (RT)	M4-10R	3
DETOUR (LT)	M4-10L	
DETOUR MARKER (RT)	M4-9R	1
DETOUR MARKER (LT)	M4-9L	1
DETOUR (UP)	M4-103	1
DETOUR AHEAD	CW20-2	
NO RIGHT TURN	R3-1	
NO LEFT TURN	R3-2	1
STOP	R1-1	1
YIELD	R1-2	
STOP AHEAD	CW3-1	1
YIELD AHEAD	CW3-2	
RIGHT ARROW	CW1-6R	
LEFT ARROW	CW1-6L	
RIGHT TURN	CW1-1R	
LEFT TURN	CW1-1L	
REVERSE CURVE RIGHT	CW1-4R	
REVERSE CURVE LEFT	CW1-4L	
DO NOT PASS	R4-1	
TWO WAY TRAFFIC	CW6-3	
45 MPH ADVISORY	CW13-1	
35 MPH ADVISORY	CW13-1	
25 MPH ADVISORY	CW13-1	
LOCAL TRAFFIC ONLY	SPECIAL	
TYPE III BARRICADES	-	27
DRUMS/TYPE II BARRICADES	-	192
CHANNELIZING DEVICES	-	450
ARROW BOARD	-	6
PORTABLE CONCRETE BARRIERS	-	
TEMPORARY CRASH CUSHION	-	
PORTABLE LIGHTING	-	6
CHANGEABLE MESSAGE BOARD	-	5
SURFACE MOUNT FLEXIBLE DELINEATORS	-	

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY BONIFACE INTERCHANGE QUANTITIES	PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	13	114-Q



LEGEND

	INCIDENT AREA/ CLOSED ROAD
	SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
	NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
	TEMPORARY STOP SIGN
	TEMPORARY YIELD SIGN
	TEMPORARY TRAFFIC CONTROL SIGNS
	MESSAGE BOARD SIGN (CMS)
	EXISTING SIGNAL
	EXISTING SIGN TO BE COVERED

- DETOUR CMS MESSAGES**
- (A) GLENN HWY CLOSED AT MULDOON RD/FOLLOW OFF RAMP DETOUR
 - (B) MULDOON RD CLOSED AT GLENN HWY/FOLLOW GLENN HWY DETOUR
 - (C) MULDOON RD CLOSED AT GLENN HWY/USE DEBARR RD FOR DOWNTOWN ACCESS

- DETOUR NOTES**
1. THIS PLAN ASSUMES THAT BOTH NB AND SB MULDOON ARE CLOSED AT GLENN HWY OVERCROSSING.
 2. FLAGGERS MAY BE REQUIRED DURING PEAK PERIODS TO ALLOW MULDOON TRAFFIC TO ENTER GLENN HWY.
 3. COORDINATE WITH JBERR FOR POSSIBLE MULDOON GATE RESTRICTIONS.

- GENERAL NOTES**
1. ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 2. HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 3. PLACE W3-2 SIGNS 500 FT IN ADVANCE OF R1-2 SIGNS.
 4. PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.
 5. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY MULDOON INTERCHANGE CLOSURE

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	13-Q	114-Q

TRAFFIC CONTROL DEVICE SUMMARY: INTERCHANGE DETOURS

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	13
		QTY
ROAD CLOSED AHEAD	CW20-3	
ROAD WORK AHEAD	CW20-1	
ROAD WORK 1 MILE	CW20-1	8
RIGHT LANE CLOSED 1/2 MILE	CW20-5	4
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A	4
RIGHT LANE CLOSED AHEAD	CW20-5R	
LEFT LANE CLOSED AHEAD	CW20-5L	
RIGHT LANE REDUCTION SYMBOL	CW4-2R	12
LEFT LANE REDUCTION SYMBOL	CW4-2L	
ROAD CLOSED	R11-2	4
LANE CLOSED	R11-102	24
DETOUR (RT)	M4-10R	4
DETOUR (LT)	M4-10L	
DETOUR MARKER (RT)	M4-9R	2
DETOUR MARKER (LT)	M4-9L	
DETOUR (UP)	M4-103	2
DETOUR AHEAD	CW20-2	
NO RIGHT TURN	R3-1	
NO LEFT TURN	R3-2	2
STOP	R1-1	
YIELD	R1-2	2
STOP AHEAD	CW3-1	
YIELD AHEAD	CW3-2	2
RIGHT ARROW	CW1-6R	
LEFT ARROW	CW1-6L	
RIGHT TURN	CW1-1R	
LEFT TURN	CW1-1L	
REVERSE CURVE RIGHT	CW1-4R	
REVERSE CURVE LEFT	CW1-4L	
DO NOT PASS	R4-1	
TWO WAY TRAFFIC	CW6-3	
45 MPH ADVISORY	CW13-1	
35 MPH ADVISORY	CW13-1	
25 MPH ADVISORY	CW13-1	
LOCAL TRAFFIC ONLY	SPECIAL	
TYPE III BARRICADES	-	28
DRUMS/TYPE II BARRICADES	-	192
CHANNELIZING DEVICES	-	460
ARROW BOARD	-	6
PORTABLE CONCRETE BARRIERS	-	
TEMPORARY CRASH CUSHION	-	
PORTABLE LIGHTING	-	6
CHANGEABLE MESSAGE BOARD	-	5
SURFACE MOUNT FLEXIBLE DELINEATORS	-	

<p>PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102</p>	<p>STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES</p> <p>GLENN HIGHWAY MULDOON INTERCHANGE QUANTITIES</p>
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	14	114-Q

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LEGEND

-  INCIDENT AREA/ CLOSED ROAD
-  SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
-  NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
-  TEMPORARY STOP SIGN
-  TEMPORARY YIELD SIGN
-  TEMPORARY TRAFFIC CONTROL SIGNS
-  MESSAGE BOARD SIGN (CMS)
-  EXISTING SIGNAL
-  EXISTING SIGN TO BE COVERED

DETOUR CMS MESSAGES

- (A) JBER-RICHARDSON OVERCROSSING CLOSED/FOLLOW OFF RAMP DETOUR
- (B) GLENN HWY OVERCROSSING CLOSED/FOLLOW GLENN HWY DETOUR (ADDITIONAL MESSAGING SHOULD BE COORDINATED WITH JBER)

DETOUR NOTES

1. PLAN DEPICTS STOP AND/OR YIELD CONTROL. FLAGGERS & FLAGGER SIGNING WILL BE REQUIRED DURING PEAK PERIODS. SEE SHEET D4.
2. COORDINATE WITH JBER FOR POSSIBLE JBER-RICHARDSON GATE RESTRICTIONS.

GENERAL NOTES

1. ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
2. HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
3. PLACE W3-2 SIGNS 500 FT IN ADVANCE OF R1-2 SIGNS.
4. PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.
5. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 3909 ARCTIC BLVD, SUITE 400
 ANCHORAGE, ALASKA 99503
 (907) 346-2373
 CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

GLENN HIGHWAY JBER-RICHARDSON INTERCHANGE CLOSURE

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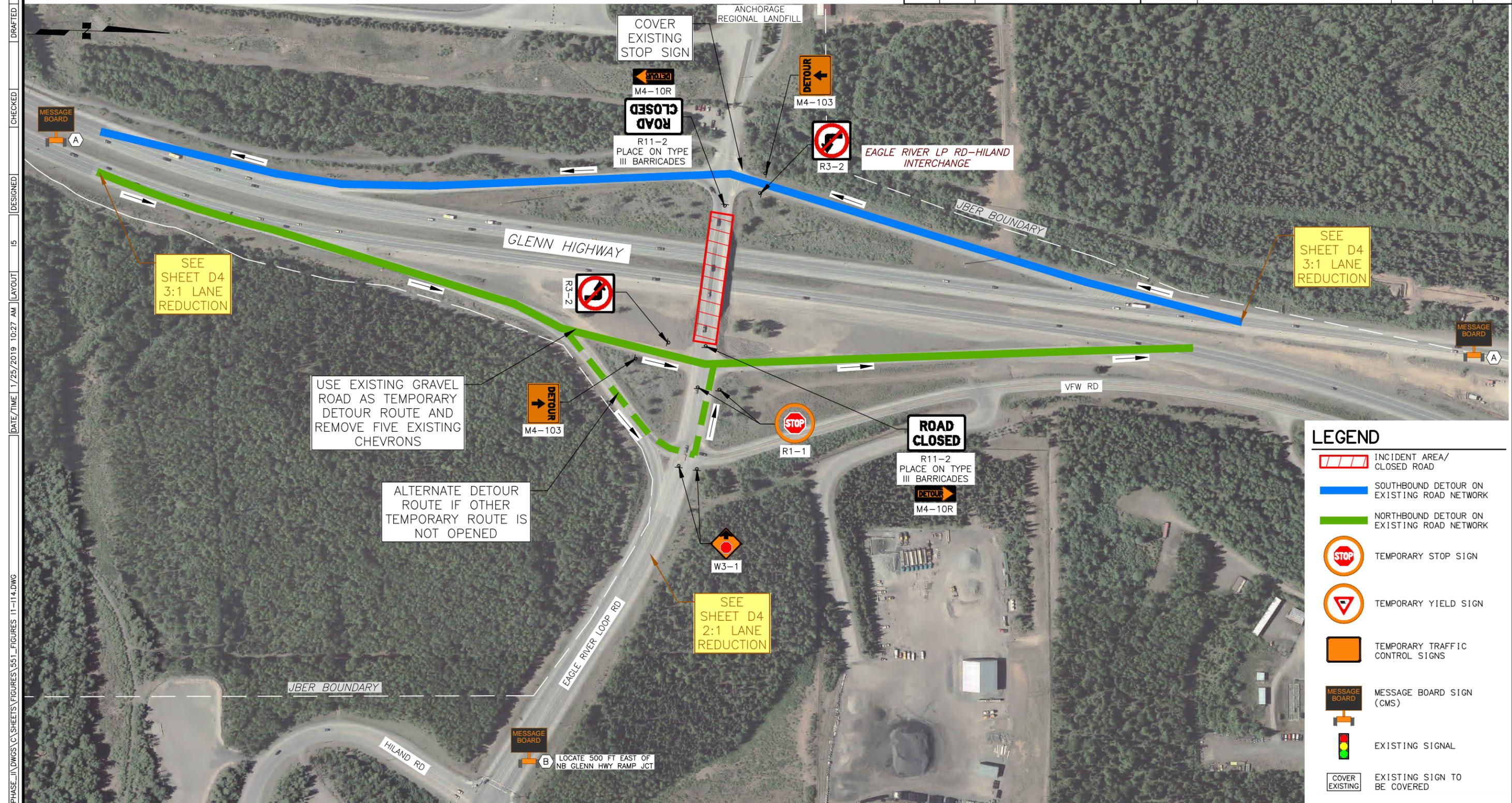
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	14-Q	114-Q

TRAFFIC CONTROL DEVICE SUMMARY: INTERCHANGE DETOURS

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	14
		QTY
ROAD CLOSED AHEAD	CW20-3	
ROAD WORK AHEAD	CW20-1	
ROAD WORK 1 MILE	CW20-1	4
RIGHT LANE CLOSED 1/2 MILE	CW20-5	
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A	4
RIGHT LANE CLOSED AHEAD	CW20-5R	
LEFT LANE CLOSED AHEAD	CW20-5L	
RIGHT LANE REDUCTION SYMBOL	CW4-2R	8
LEFT LANE REDUCTION SYMBOL	CW4-2L	
ROAD CLOSED	R11-2	2
LANE CLOSED	R11-102	16
DETOUR (RT)	M4-10R	2
DETOUR (LT)	M4-10L	
DETOUR MARKER (RT)	M4-9R	
DETOUR MARKER (LT)	M4-9L	
DETOUR (UP)	M4-103	2
DETOUR AHEAD	CW20-2	
NO RIGHT TURN	R3-1	
NO LEFT TURN	R3-2	2
STOP	R1-1	
YIELD	R1-2	1
STOP AHEAD	CW3-1	
YIELD AHEAD	CW3-2	1
RIGHT ARROW	CW1-6R	
LEFT ARROW	CW1-6L	
RIGHT TURN	CW1-1R	
LEFT TURN	CW1-1L	
REVERSE CURVE RIGHT	CW1-4R	
REVERSE CURVE LEFT	CW1-4L	
DO NOT PASS	R4-1	
TWO WAY TRAFFIC	CW6-3	
45 MPH ADVISORY	CW13-1	
35 MPH ADVISORY	CW13-1	
25 MPH ADVISORY	CW13-1	
LOCAL TRAFFIC ONLY	SPECIAL	
TYPE III BARRICADES	-	18
DRUMS/TYPE II BARRICADES	-	160
CHANNELIZING DEVICES	-	240
ARROW BOARD	-	4
PORTABLE CONCRETE BARRIERS	-	
TEMPORARY CRASH CUSHION	-	
PORTABLE LIGHTING	-	4
CHANGEABLE MESSAGE BOARD	-	3
SURFACE MOUNT FLEXIBLE DELINEATORS	-	

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY JBER-RICHARDSON INTERCHANGE QUANTITIES
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	15	114-Q



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LEGEND	
	INCIDENT AREA/ CLOSED ROAD
	SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
	NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
	TEMPORARY STOP SIGN
	TEMPORARY YIELD SIGN
	TEMPORARY TRAFFIC CONTROL SIGNS
	MESSAGE BOARD SIGN (CMS)
	EXISTING SIGNAL
	EXISTING SIGN TO BE COVERED

DETOUR CMS MESSAGES

- (A) EAGLE RIVER LP RD/HILAND OVERCROSSING CLOSED/FOLLOW OFF RAMP DETOUR
- (B) GLENN HWY OVERCROSSING CLOSED/FOLLOW GLENN HWY DETOUR

DETOUR NOTES

1. PLAN IS SIGNED FOR USE OF EXISTING NB OFF RAMP GRAVEL ROAD.
2. CONSIDER CLOSING LANDFILL. COORDINATE WITH JBER FOR POSSIBLE LANDFILL EXIT THROUGH JBER TO WEIGH STATION.
3. PLAN DEPICTS STOP CONTROL. FLAGGERS & FLAGGER SIGNING WILL BE REQUIRED DURING PEAK PERIODS. SEE SHEET D4.

GENERAL NOTES

1. ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
2. HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
3. PLACE W3-1 SIGNS 500 FT IN ADVANCE OF R1-1 SIGNS.
4. PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.
5. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
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 CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
**GLENN HIGHWAY
 EAGLE RIVER LP RD – HILAND
 INTERCHANGE CLOSURE**

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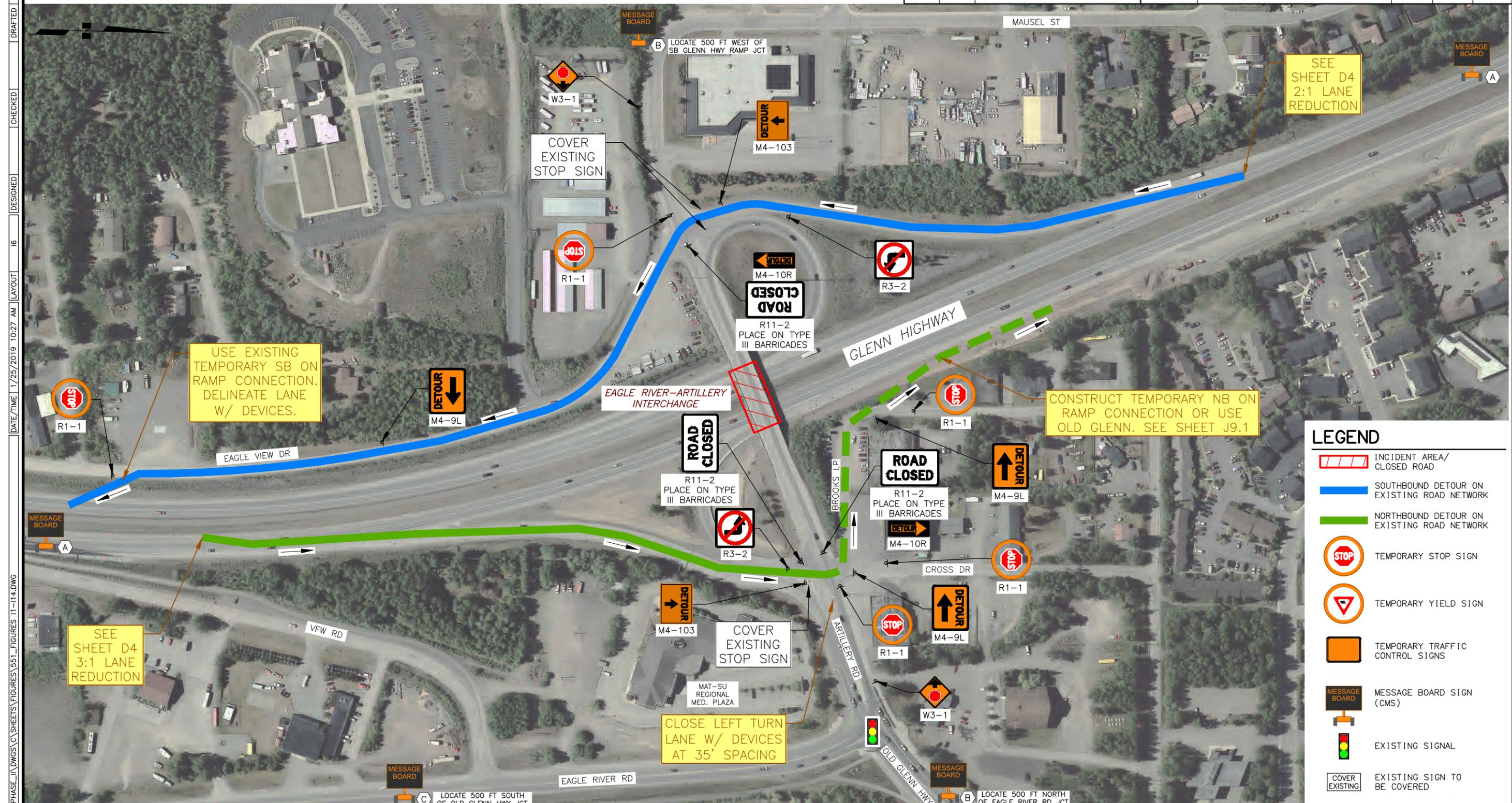
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	15-Q	114-Q

TRAFFIC CONTROL DEVICE SUMMARY: INTERCHANGE DETOURS

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	15
		QTY
ROAD CLOSED AHEAD	CW20-3	
ROAD WORK AHEAD	CW20-1	
ROAD WORK 1 MILE	CW20-1	6
RIGHT LANE CLOSED 1/2 MILE	CW20-5	2
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A	4
RIGHT LANE CLOSED AHEAD	CW20-5R	
LEFT LANE CLOSED AHEAD	CW20-5L	
RIGHT LANE REDUCTION SYMBOL	CW4-2R	10
LEFT LANE REDUCTION SYMBOL	CW4-2L	
ROAD CLOSED	R11-2	2
LANE CLOSED	R11-102	20
DETOUR (RT)	M4-10R	2
DETOUR (LT)	M4-10L	
DETOUR MARKER (RT)	M4-9R	
DETOUR MARKER (LT)	M4-9L	
DETOUR (UP)	M4-103	2
DETOUR AHEAD	CW20-2	
NO RIGHT TURN	R3-1	
NO LEFT TURN	R3-2	2
STOP	R1-1	2
YIELD	R1-2	
STOP AHEAD	CW3-1	2
YIELD AHEAD	CW3-2	
RIGHT ARROW	CW1-6R	
LEFT ARROW	CW1-6L	
RIGHT TURN	CW1-1R	
LEFT TURN	CW1-1L	
REVERSE CURVE RIGHT	CW1-4R	
REVERSE CURVE LEFT	CW1-4L	
DO NOT PASS	R4-1	
TWO WAY TRAFFIC	CW6-3	
45 MPH ADVISORY	CW13-1	
35 MPH ADVISORY	CW13-1	
25 MPH ADVISORY	CW13-1	
LOCAL TRAFFIC ONLY	SPECIAL	
TYPE III BARRICADES	-	22
DRUMS/TYPE II BARRICADES	-	176
CHANNELIZING DEVICES	-	340
ARROW BOARD	-	5
PORTABLE CONCRETE BARRIERS	-	
TEMPORARY CRASH CUSHION	-	
PORTABLE LIGHTING	-	5
CHANGEABLE MESSAGE BOARD	-	3
SURFACE MOUNT FLEXIBLE DELINEATORS	-	

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY EAGLE RIVER LP RD – HILAND INTERCHANGE QUANTITIES
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	16	114-Q



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- TEMPORARY STOP SIGN
- TEMPORARY YIELD SIGN
- TEMPORARY TRAFFIC CONTROL SIGNS
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING SIGN TO BE COVERED

DETOUR CMS MESSAGES

- (A) EAGLE RIVER/ARTILLERY OVERCROSSING CLOSED/FOLLOW OFF RAMP DETOUR
- (B) ARTILLERY OVERCROSSING CLOSED/FOLLOW GLENN HWY DETOUR
- (C) ARTILLERY OVERCROSSING CLOSED/USE OLD GLENN HWY

DETOUR NOTES

1. PLAN DEPICTS STOP CONTROL. FLAGGERS & FLAGGER SIGNING WILL BE REQUIRED DURING PEAK PERIODS. SEE SHEET D4.

GENERAL NOTES

1. ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
2. HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
3. PLACE W3-1 SIGNS 500 FT IN ADVANCE OF R1-1 SIGNS.
4. PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.
5. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY EAGLE RIVER - ARTILLERY INTERCHANGE CLOSURE

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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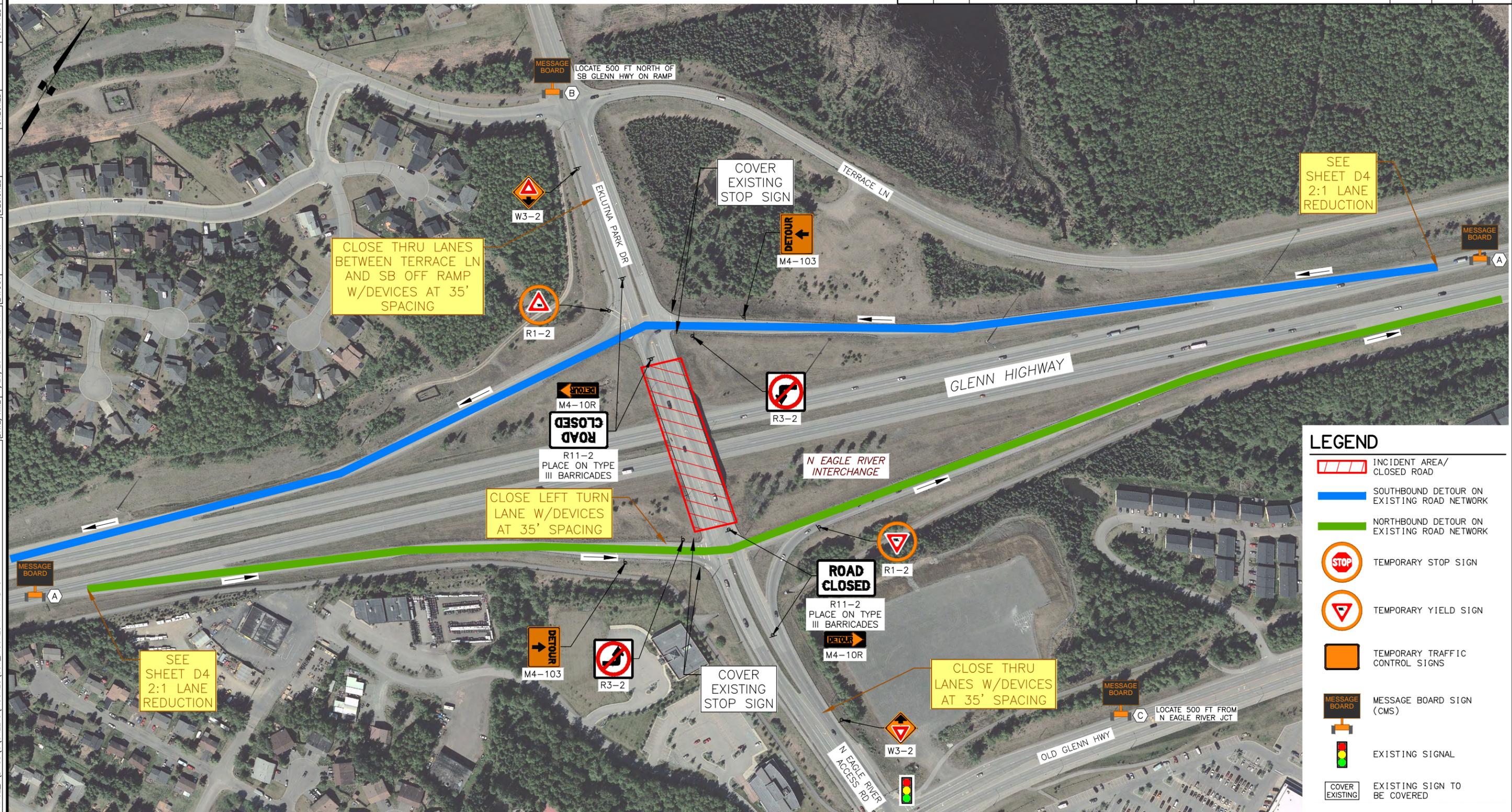
TRAFFIC CONTROL DEVICE SUMMARY: INTERCHANGE DETOURS

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	16
		QTY
ROAD CLOSED AHEAD	CW20-3	
ROAD WORK AHEAD	CW20-1	
ROAD WORK 1 MILE	CW20-1	4
RIGHT LANE CLOSED 1/2 MILE	CW20-5	2
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A	2
RIGHT LANE CLOSED AHEAD	CW20-5R	
LEFT LANE CLOSED AHEAD	CW20-5L	
RIGHT LANE REDUCTION SYMBOL	CW4-2R	6
LEFT LANE REDUCTION SYMBOL	CW4-2L	
ROAD CLOSED	R11-2	3
LANE CLOSED	R11-102	12
DETOUR (RT)	M4-10R	2
DETOUR (LT)	M4-10L	
DETOUR MARKER (RT)	M4-9R	
DETOUR MARKER (LT)	M4-9L	3
DETOUR (UP)	M4-103	2
DETOUR AHEAD	CW20-2	
NO RIGHT TURN	R3-1	
NO LEFT TURN	R3-2	2
STOP	R1-1	5
YIELD	R1-2	
STOP AHEAD	CW3-1	2
YIELD AHEAD	CW3-2	
RIGHT ARROW	CW1-6R	
LEFT ARROW	CW1-6L	
RIGHT TURN	CW1-1R	
LEFT TURN	CW1-1L	
REVERSE CURVE RIGHT	CW1-4R	
REVERSE CURVE LEFT	CW1-4L	
DO NOT PASS	R4-1	
TWO WAY TRAFFIC	CW6-3	
45 MPH ADVISORY	CW13-1	
35 MPH ADVISORY	CW13-1	
25 MPH ADVISORY	CW13-1	
LOCAL TRAFFIC ONLY	SPECIAL	
TYPE III BARRICADES	-	15
DRUMS/TYPE II BARRICADES	-	96
CHANNELIZING DEVICES	-	260
ARROW BOARD	-	3
PORTABLE CONCRETE BARRIERS	-	
TEMPORARY CRASH CUSHION	-	
PORTABLE LIGHTING	-	3
CHANGEABLE MESSAGE BOARD	-	5
SURFACE MOUNT FLEXIBLE DELINEATORS	-	

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY EAGLE RIVER – ARTILLERY INTERCHANGE QUANTITIES
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	17	114-Q

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DETOUR CMS MESSAGES

- (A) N EAGLE RIVER OVERCROSSING CLOSED/FOLLOW OFF RAMP DETOUR
- (B) N EAGLE RIVER OVERCROSSING CLOSED/FOLLOW GLENN HWY DETOUR
- (C) N EAGLE RIVER OVERCROSSING CLOSED/FOLLOW OLD GLENN HWY

DETOUR NOTES

1. PLAN DEPICTS STOP CONTROL, FLAGGERS & FLAGGER SIGNING WILL BE REQUIRED DURING PEAK PERIODS. SEE SHEET D4.

GENERAL NOTES

1. ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
2. HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
3. PLACE W3-2 SIGNS 500 FT IN ADVANCE OF R1-2 SIGNS.
4. PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.
5. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- TEMPORARY STOP SIGN
- TEMPORARY YIELD SIGN
- TEMPORARY TRAFFIC CONTROL SIGNS
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING SIGN TO BE COVERED

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 3909 ARCTIC BLVD, SUITE 400
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 CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
**GLENN HIGHWAY
 N EAGLE RIVER INTERCHANGE
 CLOSURE**

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	17-Q	114-Q

TRAFFIC CONTROL DEVICE SUMMARY: INTERCHANGE DETOURS

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	17
		QTY
ROAD CLOSED AHEAD	CW20-3	
ROAD WORK AHEAD	CW20-1	
ROAD WORK 1 MILE	CW20-1	4
RIGHT LANE CLOSED 1/2 MILE	CW20-5	4
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A	
RIGHT LANE CLOSED AHEAD	CW20-5R	
LEFT LANE CLOSED AHEAD	CW20-5L	
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4
LEFT LANE REDUCTION SYMBOL	CW4-2L	
ROAD CLOSED	R11-2	4
LANE CLOSED	R11-102	8
DETOUR (RT)	M4-10R	4
DETOUR (LT)	M4-10L	
DETOUR MARKER (RT)	M4-9R	
DETOUR MARKER (LT)	M4-9L	
DETOUR (UP)	M4-103	2
DETOUR AHEAD	CW20-2	
NO RIGHT TURN	R3-1	
NO LEFT TURN	R3-2	2
STOP	R1-1	
YIELD	R1-2	2
STOP AHEAD	CW3-1	
YIELD AHEAD	CW3-2	2
RIGHT ARROW	CW1-6R	
LEFT ARROW	CW1-6L	
RIGHT TURN	CW1-1R	
LEFT TURN	CW1-1L	
REVERSE CURVE RIGHT	CW1-4R	
REVERSE CURVE LEFT	CW1-4L	
DO NOT PASS	R4-1	
TWO WAY TRAFFIC	CW6-3	
45 MPH ADVISORY	CW13-1	
35 MPH ADVISORY	CW13-1	
25 MPH ADVISORY	CW13-1	
LOCAL TRAFFIC ONLY	SPECIAL	
TYPE III BARRICADES	-	12
DRUMS/TYPE II BARRICADES	-	32
CHANNELIZING DEVICES	-	250
ARROW BOARD	-	2
PORTABLE CONCRETE BARRIERS	-	
TEMPORARY CRASH CUSHION	-	
PORTABLE LIGHTING	-	2
CHANGEABLE MESSAGE BOARD	-	4
SURFACE MOUNT FLEXIBLE DELINEATORS	-	

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY N EAGLE RIVER INTERCHANGE QUANTITIES
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	18	114-Q



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- TEMPORARY STOP SIGN
- TEMPORARY YIELD SIGN
- TEMPORARY TRAFFIC CONTROL SIGNS
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING SIGN TO BE COVERED

DETOUR CMS MESSAGES

- (A) GLENN HWY CLOSED AT S BIRCHWOOD/FOLLOW OFF RAMP DETOUR
- (B) S BIRCHWOOD UNDERCROSSING CLOSED/FOLLOW GLENN HWY DETOUR

DETOUR NOTES

1. PLAN DEPICTS STOP CONTROL. FLAGGERS & FLAGGER SIGNING WILL BE REQUIRED DURING PEAK PERIODS. SEE SHEET D4.

GENERAL NOTES

1. ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
2. HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
3. PLACE W3-1 AND W3-2 SIGNS 500 FT IN ADVANCE OF R1-1 AND R1-2 SIGNS.
4. PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.
5. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY
S BIRCHWOOD INTERCHANGE
CLOSURE**

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
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(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	18-Q	114-Q

TRAFFIC CONTROL DEVICE SUMMARY: INTERCHANGE DETOURS

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	18
		QTY
ROAD CLOSED AHEAD	CW20-3	
ROAD WORK AHEAD	CW20-1	
ROAD WORK 1 MILE	CW20-1	4
RIGHT LANE CLOSED 1/2 MILE	CW20-5	4
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A	
RIGHT LANE CLOSED AHEAD	CW20-5R	
LEFT LANE CLOSED AHEAD	CW20-5L	
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4
LEFT LANE REDUCTION SYMBOL	CW4-2L	
ROAD CLOSED	R11-2	2
LANE CLOSED	R11-102	8
DETOUR (RT)	M4-10R	2
DETOUR (LT)	M4-10L	
DETOUR MARKER (RT)	M4-9R	
DETOUR MARKER (LT)	M4-9L	
DETOUR (UP)	M4-103	2
DETOUR AHEAD	CW20-2	
NO RIGHT TURN	R3-1	
NO LEFT TURN	R3-2	2
STOP	R1-1	2
YIELD	R1-2	1
STOP AHEAD	CW3-1	2
YIELD AHEAD	CW3-2	1
RIGHT ARROW	CW1-6R	
LEFT ARROW	CW1-6L	
RIGHT TURN	CW1-1R	
LEFT TURN	CW1-1L	
REVERSE CURVE RIGHT	CW1-4R	
REVERSE CURVE LEFT	CW1-4L	
DO NOT PASS	R4-1	
TWO WAY TRAFFIC	CW6-3	
45 MPH ADVISORY	CW13-1	
35 MPH ADVISORY	CW13-1	
25 MPH ADVISORY	CW13-1	
LOCAL TRAFFIC ONLY	SPECIAL	
TYPE III BARRICADES	-	10
DRUMS/TYPE II BARRICADES	-	32
CHANNELIZING DEVICES	-	200
ARROW BOARD	-	2
PORTABLE CONCRETE BARRIERS	-	
TEMPORARY CRASH CUSHION	-	
PORTABLE LIGHTING	-	2
CHANGEABLE MESSAGE BOARD	-	4
SURFACE MOUNT FLEXIBLE DELINEATORS	-	

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY S BIRCHWOOD INTERCHANGE QUANTITIES
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	19	114-Q

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LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- TEMPORARY STOP SIGN
- TEMPORARY YIELD SIGN
- TEMPORARY TRAFFIC CONTROL SIGNS
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING SIGN TO BE COVERED

DETOUR CMS MESSAGES

(A) GLENN HWY CLOSED AT N BIRCHWOOD/FOLLOW OFF RAMP DETOUR
 (B) N BIRCHWOOD OVERCROSSING CLOSED/FOLLOW GLENN HWY DETOUR

DETOUR NOTES

1. PLAN DEPICTS STOP CONTROL. FLAGGERS & FLAGGER SIGNING WILL BE REQUIRED DURING PEAK PERIODS. SEE SHEET D4.

GENERAL NOTES

1. ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
2. HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
3. PLACE W3-1 SIGNS 500 FT IN ADVANCE OF R1-1 SIGNS.
4. PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.
5. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY N BIRCHWOOD INTERCHANGE CLOSURE

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 3909 ARCTIC BLVD, SUITE 400
 ANCHORAGE, ALASKA 99503
 (907) 346-2373
 CERT. OF AUTH. NO. AECL 1102

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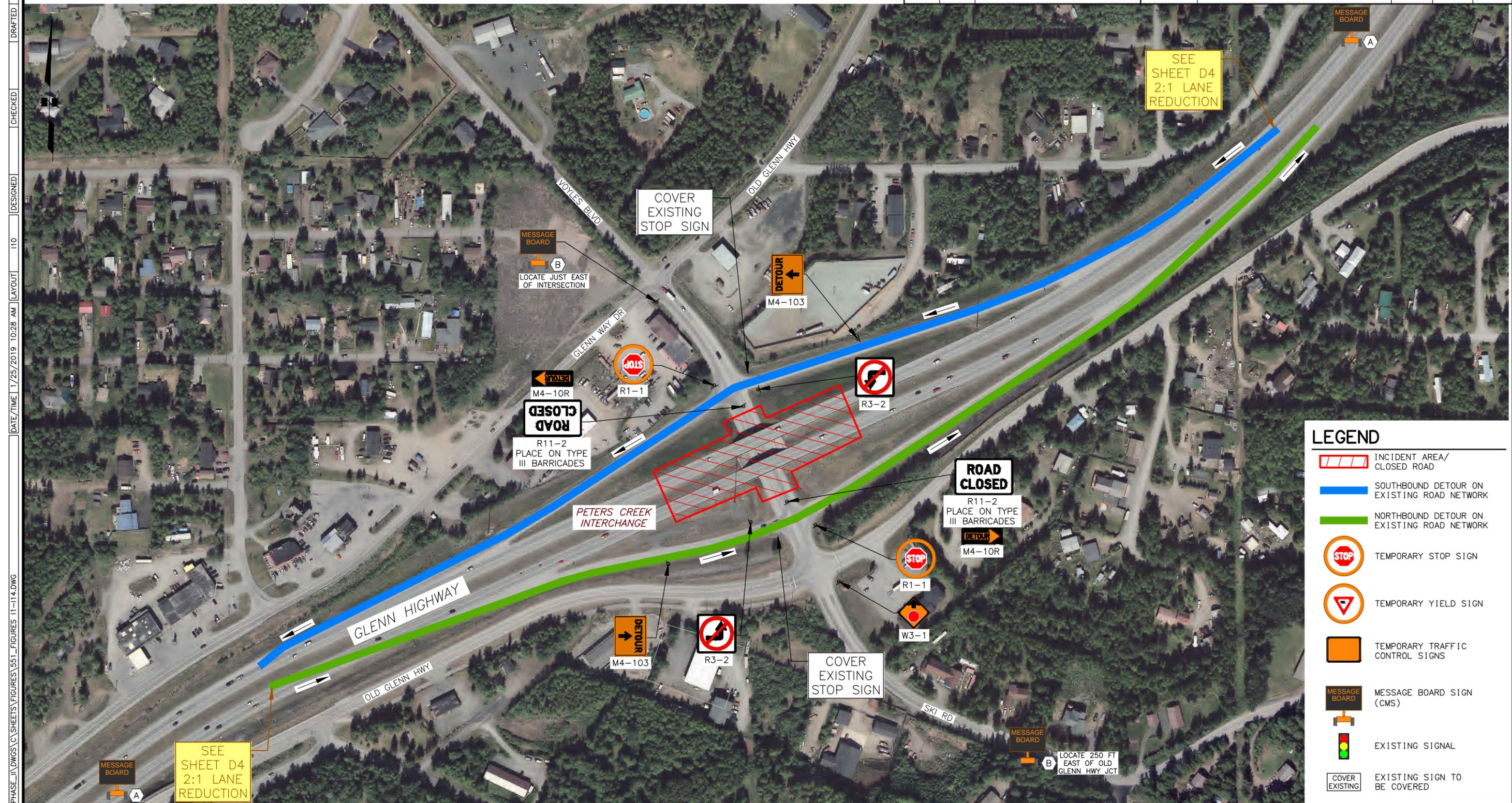
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	19-Q	114-Q

TRAFFIC CONTROL DEVICE SUMMARY: INTERCHANGE DETOURS

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	19
		QTY
ROAD CLOSED AHEAD	CW20-3	
ROAD WORK AHEAD	CW20-1	
ROAD WORK 1 MILE	CW20-1	4
RIGHT LANE CLOSED 1/2 MILE	CW20-5	4
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A	
RIGHT LANE CLOSED AHEAD	CW20-5R	
LEFT LANE CLOSED AHEAD	CW20-5L	
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4
LEFT LANE REDUCTION SYMBOL	CW4-2L	
ROAD CLOSED	R11-2	2
LANE CLOSED	R11-102	8
DETOUR (RT)	M4-10R	2
DETOUR (LT)	M4-10L	
DETOUR MARKER (RT)	M4-9R	
DETOUR MARKER (LT)	M4-9L	
DETOUR (UP)	M4-103	2
DETOUR AHEAD	CW20-2	
NO RIGHT TURN	R3-1	
NO LEFT TURN	R3-2	2
STOP	R1-1	2
YIELD	R1-2	
STOP AHEAD	CW3-1	2
YIELD AHEAD	CW3-2	
RIGHT ARROW	CW1-6R	
LEFT ARROW	CW1-6L	
RIGHT TURN	CW1-1R	
LEFT TURN	CW1-1L	
REVERSE CURVE RIGHT	CW1-4R	
REVERSE CURVE LEFT	CW1-4L	
DO NOT PASS	R4-1	
TWO WAY TRAFFIC	CW6-3	
45 MPH ADVISORY	CW13-1	
35 MPH ADVISORY	CW13-1	
25 MPH ADVISORY	CW13-1	
LOCAL TRAFFIC ONLY	SPECIAL	
TYPE III BARRICADES	-	10
DRUMS/TYPE II BARRICADES	-	32
CHANNELIZING DEVICES	-	210
ARROW BOARD	-	2
PORTABLE CONCRETE BARRIERS	-	
TEMPORARY CRASH CUSHION	-	
PORTABLE LIGHTING	-	2
CHANGEABLE MESSAGE BOARD	-	4
SURFACE MOUNT FLEXIBLE DELINEATORS	-	

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY N BIRCHWOOD INTERCHANGE QUANTITIES
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	110	114-Q



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- TEMPORARY STOP SIGN
- TEMPORARY YIELD SIGN
- TEMPORARY TRAFFIC CONTROL SIGNS
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING SIGN TO BE COVERED

DETOUR CMS MESSAGES

(A) GLENN HWY CLOSED AT PETERS CREEK/FOLLOW OFF RAMP DETOUR
 (B) PETERS CREEK UNDERCROSSING CLOSED/FOLLOW GLENN HWY DETOUR

DETOUR NOTES

1. PLAN DEPICTS STOP CONTROL. FLAGGERS & FLAGGER SIGNING WILL BE REQUIRED DURING PEAK PERIODS. SEE SHEET D4.

GENERAL NOTES

- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
- HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
- PLACE W3-1 SIGNS 500 FT IN ADVANCE OF R1-1 SIGNS.
- PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.
- LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 3909 ARCTIC BLVD, SUITE 400
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 (907) 346-2373
 CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

GLENN HIGHWAY PETERS CREEK INTERCHANGE CLOSURE

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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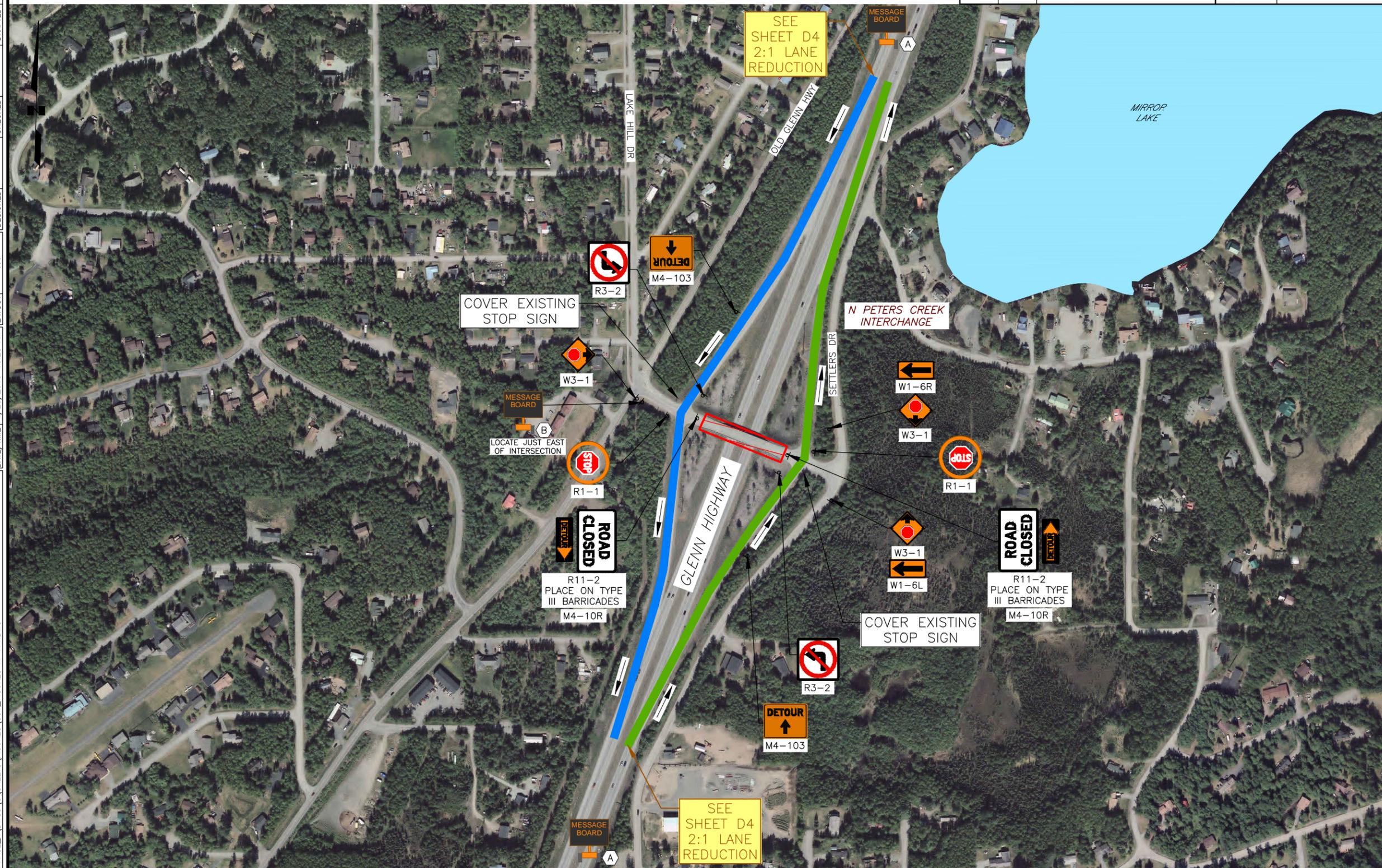
TRAFFIC CONTROL DEVICE SUMMARY: INTERCHANGE DETOURS

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	I10
		QTY
ROAD CLOSED AHEAD	CW20-3	
ROAD WORK AHEAD	CW20-1	
ROAD WORK 1 MILE	CW20-1	4
RIGHT LANE CLOSED 1/2 MILE	CW20-5	4
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A	
RIGHT LANE CLOSED AHEAD	CW20-5R	
LEFT LANE CLOSED AHEAD	CW20-5L	
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4
LEFT LANE REDUCTION SYMBOL	CW4-2L	
ROAD CLOSED	R11-2	2
LANE CLOSED	R11-102	8
DETOUR (RT)	M4-10R	2
DETOUR (LT)	M4-10L	
DETOUR MARKER (RT)	M4-9R	
DETOUR MARKER (LT)	M4-9L	
DETOUR (UP)	M4-103	2
DETOUR AHEAD	CW20-2	
NO RIGHT TURN	R3-1	
NO LEFT TURN	R3-2	2
STOP	R1-1	2
YIELD	R1-2	
STOP AHEAD	CW3-1	1
YIELD AHEAD	CW3-2	
RIGHT ARROW	CW1-6R	
LEFT ARROW	CW1-6L	
RIGHT TURN	CW1-1R	
LEFT TURN	CW1-1L	
REVERSE CURVE RIGHT	CW1-4R	
REVERSE CURVE LEFT	CW1-4L	
DO NOT PASS	R4-1	
TWO WAY TRAFFIC	CW6-3	
45 MPH ADVISORY	CW13-1	
35 MPH ADVISORY	CW13-1	
25 MPH ADVISORY	CW13-1	
LOCAL TRAFFIC ONLY	SPECIAL	
TYPE III BARRICADES	-	10
DRUMS/TYPE II BARRICADES	-	32
CHANNELIZING DEVICES	-	200
ARROW BOARD	-	2
PORTABLE CONCRETE BARRIERS	-	
TEMPORARY CRASH CUSHION	-	
PORTABLE LIGHTING	-	2
CHANGEABLE MESSAGE BOARD	-	4
SURFACE MOUNT FLEXIBLE DELINEATORS	-	

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY PETERS CREEK INTERCHANGE QUANTITIES
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	111	114-Q

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LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- TEMPORARY STOP SIGN
- TEMPORARY YIELD SIGN
- TEMPORARY TRAFFIC CONTROL SIGNS
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- COVER EXISTING EXISTING SIGN TO BE COVERED

- #### DETOUR CMS MESSAGES
- (A) GLENN HWY CLOSED AT N PETERS CREEK/FOLLOW OFF RAMP DETOUR
 - (B) N PETERS CREEK OVERCROSSING CLOSED/FOLLOW GLENN HWY DETOUR

- #### GENERAL NOTES
1. ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 2. HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY DEVICES.
 3. PLACE W3-1 SIGNS 500 FT IN ADVANCE OF R1-1 SIGNS.
 4. PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.
 5. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY N PETERS CREEK INTERCHANGE CLOSURE

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 3909 ARCTIC BLVD, SUITE 400
 ANCHORAGE, ALASKA 99503
 (907) 346-2373
 CERT. OF AUTH. NO. AECL 1102

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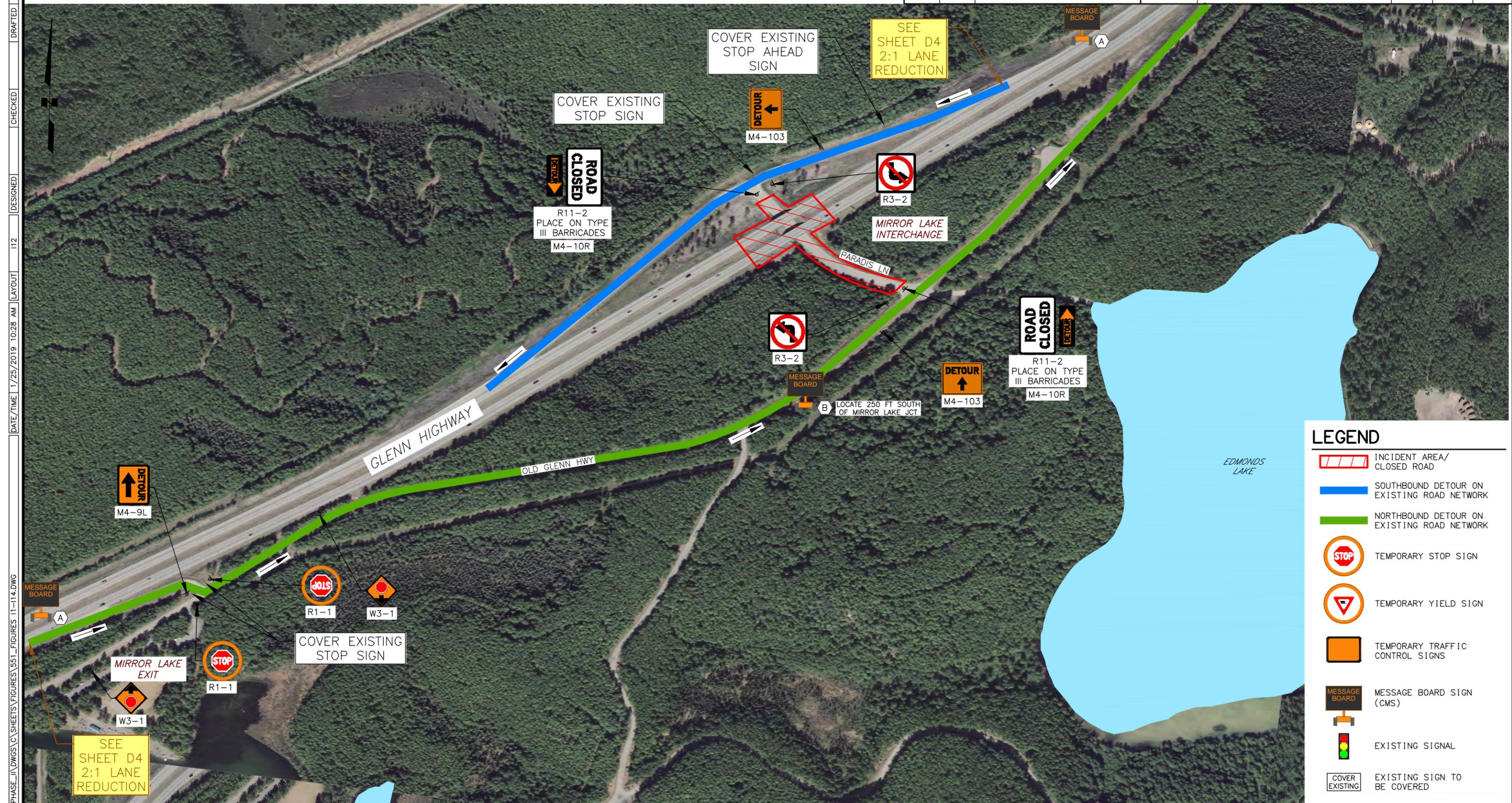
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	111-Q	114-Q

TRAFFIC CONTROL DEVICE SUMMARY: INTERCHANGE DETOURS

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	I11
		QTY
ROAD CLOSED AHEAD	CW20-3	
ROAD WORK AHEAD	CW20-1	
ROAD WORK 1 MILE	CW20-1	4
RIGHT LANE CLOSED 1/2 MILE	CW20-5	4
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A	
RIGHT LANE CLOSED AHEAD	CW20-5R	
LEFT LANE CLOSED AHEAD	CW20-5L	
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4
LEFT LANE REDUCTION SYMBOL	CW4-2L	
ROAD CLOSED	R11-2	2
LANE CLOSED	R11-102	8
DETOUR (RT)	M4-10R	2
DETOUR (LT)	M4-10L	
DETOUR MARKER (RT)	M4-9R	
DETOUR MARKER (LT)	M4-9L	
DETOUR (UP)	M4-103	2
DETOUR AHEAD	CW20-2	
NO RIGHT TURN	R3-1	
NO LEFT TURN	R3-2	2
STOP	R1-1	2
YIELD	R1-2	
STOP AHEAD	CW3-1	3
YIELD AHEAD	CW3-2	
RIGHT ARROW	CW1-6R	1
LEFT ARROW	CW1-6L	1
RIGHT TURN	CW1-1R	
LEFT TURN	CW1-1L	
REVERSE CURVE RIGHT	CW1-4R	
REVERSE CURVE LEFT	CW1-4L	
DO NOT PASS	R4-1	
TWO WAY TRAFFIC	CW6-3	
45 MPH ADVISORY	CW13-1	
35 MPH ADVISORY	CW13-1	
25 MPH ADVISORY	CW13-1	
LOCAL TRAFFIC ONLY	SPECIAL	
TYPE III BARRICADES	-	10
DRUMS/TYPE II BARRICADES	-	32
CHANNELIZING DEVICES	-	200
ARROW BOARD	-	2
PORTABLE CONCRETE BARRIERS	-	
TEMPORARY CRASH CUSHION	-	
PORTABLE LIGHTING	-	2
CHANGEABLE MESSAGE BOARD	-	3
SURFACE MOUNT FLEXIBLE DELINEATORS	-	

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY N PETERS CREEK INTERCHANGE QUANTITIES
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	112	114-Q



LEGEND	
	INCIDENT AREA/ CLOSED ROAD
	SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
	NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
	TEMPORARY STOP SIGN
	TEMPORARY YIELD SIGN
	TEMPORARY TRAFFIC CONTROL SIGNS
	MESSAGE BOARD SIGN (CMS)
	EXISTING SIGNAL
	EXISTING SIGN TO BE COVERED

DETOUR CMS MESSAGES

(A) GLENN HWY CLOSED AT MIRROR LAKE/FOLLOW OFF RAMP DETOUR

(B) MIRROR LAKE UNDERCROSSING CLOSED/FOLLOW GLENN HWY DETOUR

- GENERAL NOTES**
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE W3-1 SIGNS 500 FT IN ADVANCE OF R1-1 SIGNS.
 - PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.
 - LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
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(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY
MIRROR LAKE INTERCHANGE
CLOSURE**

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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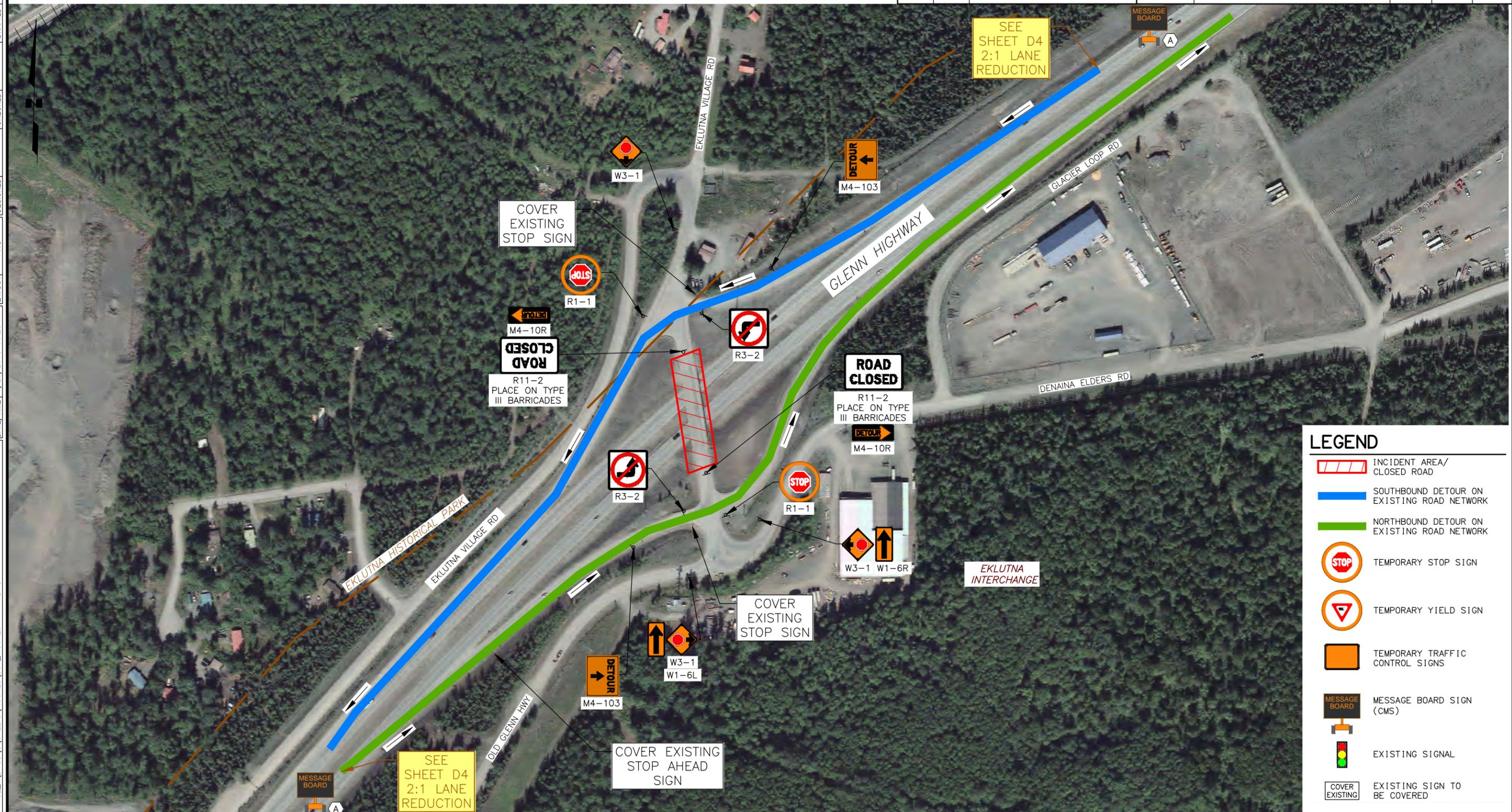
TRAFFIC CONTROL DEVICE SUMMARY: INTERCHANGE DETOURS

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	I12
		QTY
ROAD CLOSED AHEAD	CW20-3	
ROAD WORK AHEAD	CW20-1	
ROAD WORK 1 MILE	CW20-1	4
RIGHT LANE CLOSED 1/2 MILE	CW20-5	4
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A	
RIGHT LANE CLOSED AHEAD	CW20-5R	
LEFT LANE CLOSED AHEAD	CW20-5L	
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4
LEFT LANE REDUCTION SYMBOL	CW4-2L	
ROAD CLOSED	R11-2	2
LANE CLOSED	R11-102	8
DETOUR (RT)	M4-10R	2
DETOUR (LT)	M4-10L	
DETOUR MARKER (RT)	M4-9R	
DETOUR MARKER (LT)	M4-9L	1
DETOUR (UP)	M4-103	2
DETOUR AHEAD	CW20-2	
NO RIGHT TURN	R3-1	
NO LEFT TURN	R3-2	2
STOP	R1-1	2
YIELD	R1-2	
STOP AHEAD	CW3-1	2
YIELD AHEAD	CW3-2	
RIGHT ARROW	CW1-6R	
LEFT ARROW	CW1-6L	
RIGHT TURN	CW1-1R	
LEFT TURN	CW1-1L	
REVERSE CURVE RIGHT	CW1-4R	
REVERSE CURVE LEFT	CW1-4L	
DO NOT PASS	R4-1	
TWO WAY TRAFFIC	CW6-3	
45 MPH ADVISORY	CW13-1	
35 MPH ADVISORY	CW13-1	
25 MPH ADVISORY	CW13-1	
LOCAL TRAFFIC ONLY	SPECIAL	
TYPE III BARRICADES	-	10
DRUMS/TYPE II BARRICADES	-	32
CHANNELIZING DEVICES	-	200
ARROW BOARD	-	2
PORTABLE CONCRETE BARRIERS	-	
TEMPORARY CRASH CUSHION	-	
PORTABLE LIGHTING	-	2
CHANGEABLE MESSAGE BOARD	-	3
SURFACE MOUNT FLEXIBLE DELINEATORS	-	

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY MIRROR LAKE INTERCHANGE QUANTITIES
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	113	114-Q

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LEGEND

-  INCIDENT AREA/ CLOSED ROAD
-  SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
-  NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
-  TEMPORARY STOP SIGN
-  TEMPORARY YIELD SIGN
-  TEMPORARY TRAFFIC CONTROL SIGNS
-  MESSAGE BOARD SIGN (CMS)
-  EXISTING SIGNAL
-  EXISTING SIGN TO BE COVERED

DETOUR CMS MESSAGES

(A) GLENN HWY CLOSED AT EKLUTNA/FOLLOW OFF RAMP DETOUR

GENERAL NOTES

1. ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
2. HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY DEVICES
3. PLACE W3-1 SIGNS 500 FT IN ADVANCE OF R1-1 SIGNS.
4. PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.
5. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

PLANS DEVELOPED BY:
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STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
**GLENN HIGHWAY
 EKLUTNA INTERCHANGE
 CLOSURE**

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	113-Q	114-Q

TRAFFIC CONTROL DEVICE SUMMARY: INTERCHANGE DETOURS

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	I13
		QTY
ROAD CLOSED AHEAD	CW20-3	
ROAD WORK AHEAD	CW20-1	
ROAD WORK 1 MILE	CW20-1	4
RIGHT LANE CLOSED 1/2 MILE	CW20-5	4
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A	
RIGHT LANE CLOSED AHEAD	CW20-5R	
LEFT LANE CLOSED AHEAD	CW20-5L	
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4
LEFT LANE REDUCTION SYMBOL	CW4-2L	
ROAD CLOSED	R11-2	2
LANE CLOSED	R11-102	8
DETOUR (RT)	M4-10R	2
DETOUR (LT)	M4-10L	
DETOUR MARKER (RT)	M4-9R	
DETOUR MARKER (LT)	M4-9L	
DETOUR (UP)	M4-103	2
DETOUR AHEAD	CW20-2	
NO RIGHT TURN	R3-1	
NO LEFT TURN	R3-2	2
STOP	R1-1	2
YIELD	R1-2	
STOP AHEAD	CW3-1	3
YIELD AHEAD	CW3-2	
RIGHT ARROW	CW1-6R	1
LEFT ARROW	CW1-6L	1
RIGHT TURN	CW1-1R	
LEFT TURN	CW1-1L	
REVERSE CURVE RIGHT	CW1-4R	
REVERSE CURVE LEFT	CW1-4L	
DO NOT PASS	R4-1	
TWO WAY TRAFFIC	CW6-3	
45 MPH ADVISORY	CW13-1	
35 MPH ADVISORY	CW13-1	
25 MPH ADVISORY	CW13-1	
LOCAL TRAFFIC ONLY	SPECIAL	
TYPE III BARRICADES	-	10
DRUMS/TYPE II BARRICADES	-	32
CHANNELIZING DEVICES	-	200
ARROW BOARD	-	2
PORTABLE CONCRETE BARRIERS	-	
TEMPORARY CRASH CUSHION	-	
PORTABLE LIGHTING	-	2
CHANGEABLE MESSAGE BOARD	-	2
SURFACE MOUNT FLEXIBLE DELINEATORS	-	

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY EKLUTNA INTERCHANGE QUANTITIES
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	114	114-Q

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LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- TEMPORARY STOP SIGN
- TEMPORARY YIELD SIGN
- TEMPORARY TRAFFIC CONTROL SIGNS
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- COVER EXISTING SIGN TO BE COVERED

DETOUR CMS MESSAGES

(A) GLENN HWY CLOSED AT OLD GLENN HWY/FOLLOW OFF RAMP DETOUR

(B) GLENN HWY OVERCROSSING CLOSED/FOLLOW GLENN HWY DETOUR

DETOUR NOTES

1. NO ROADWAY DETOUR AVAILABLE FOR SOUTHBOUND VEHICLES.

GENERAL NOTES

- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
- HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
- PLACE W3-1 SIGNS 500 FT IN ADVANCE OF R1-1 SIGNS.
- PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.
- LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 3909 ARCTIC BLVD, SUITE 400
 ANCHORAGE, ALASKA 99503
 (907) 346-2373
 CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

GLENN HIGHWAY OLD GLENN HWY INTERCHANGE CLOSURE

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	114-Q	114-Q

TRAFFIC CONTROL DEVICE SUMMARY: INTERCHANGE DETOURS

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	I14
		QTY
ROAD CLOSED AHEAD	CW20-3	
ROAD WORK AHEAD	CW20-1	
ROAD WORK 1 MILE	CW20-1	2
RIGHT LANE CLOSED 1/2 MILE	CW20-5	2
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A	
RIGHT LANE CLOSED AHEAD	CW20-5R	
LEFT LANE CLOSED AHEAD	CW20-5L	
RIGHT LANE REDUCTION SYMBOL	CW4-2R	2
LEFT LANE REDUCTION SYMBOL	CW4-2L	
ROAD CLOSED	R11-2	1
LANE CLOSED	R11-102	4
DETOUR (RT)	M4-10R	1
DETOUR (LT)	M4-10L	
DETOUR MARKER (RT)	M4-9R	
DETOUR MARKER (LT)	M4-9L	
DETOUR (UP)	M4-103	1
DETOUR AHEAD	CW20-2	
NO RIGHT TURN	R3-1	
NO LEFT TURN	R3-2	1
STOP	R1-1	1
YIELD	R1-2	
STOP AHEAD	CW3-1	1
YIELD AHEAD	CW3-2	
RIGHT ARROW	CW1-6R	
LEFT ARROW	CW1-6L	
RIGHT TURN	CW1-1R	
LEFT TURN	CW1-1L	
REVERSE CURVE RIGHT	CW1-4R	
REVERSE CURVE LEFT	CW1-4L	
DO NOT PASS	R4-1	
TWO WAY TRAFFIC	CW6-3	
45 MPH ADVISORY	CW13-1	
35 MPH ADVISORY	CW13-1	
25 MPH ADVISORY	CW13-1	
LOCAL TRAFFIC ONLY	SPECIAL	
TYPE III BARRICADES	-	5
DRUMS/TYPE II BARRICADES	-	16
CHANNELIZING DEVICES	-	100
ARROW BOARD	-	1
PORTABLE CONCRETE BARRIERS	-	
TEMPORARY CRASH CUSHION	-	
PORTABLE LIGHTING	-	1
CHANGEABLE MESSAGE BOARD	-	2
SURFACE MOUNT FLEXIBLE DELINEATORS	-	

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY OLD GLENN HWY INTERCHANGE QUANTITIES
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J1.1	J17-G



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

- DETOUR CMS MESSAGES**
- (A) GLENN HWY CLOSED AT AIRPORT HEIGHTS/FOLLOW SIGNED DETOUR ROUTE
 - (B) NOT USED
 - (C) NB GLENN HWY CLOSED AT AIRPORT HEIGHTS/FOLLOW DEBARR RD DETOUR ROUTE
- CROSSOVER CMS MESSAGES**
- (A) GLENN HWY REDUCED TO TWO LANES/FOLLOW DETOUR
 - (B) LEFT LANE CLOSED AHEAD/GLENN HWY REDUCED TO TWO LANES
 - (C) NOT USED

DETOUR NOTES

- DURING PEAK PERIODS, TRAFFIC SIGNALS DESIGNATED TO BE PLACED IN "FLASH MODE" WILL REQUIRE FLAGGERS & FLAGGER SIGNING. SEE SHEET D4. OTHER TRAFFIC SIGNALS ALONG THE DETOUR ROUTE MAY BE PLACED ON FLASH MODE AS DIRECTED BY THE ENGINEER.

GENERAL NOTES

- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
- HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
- PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
- LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

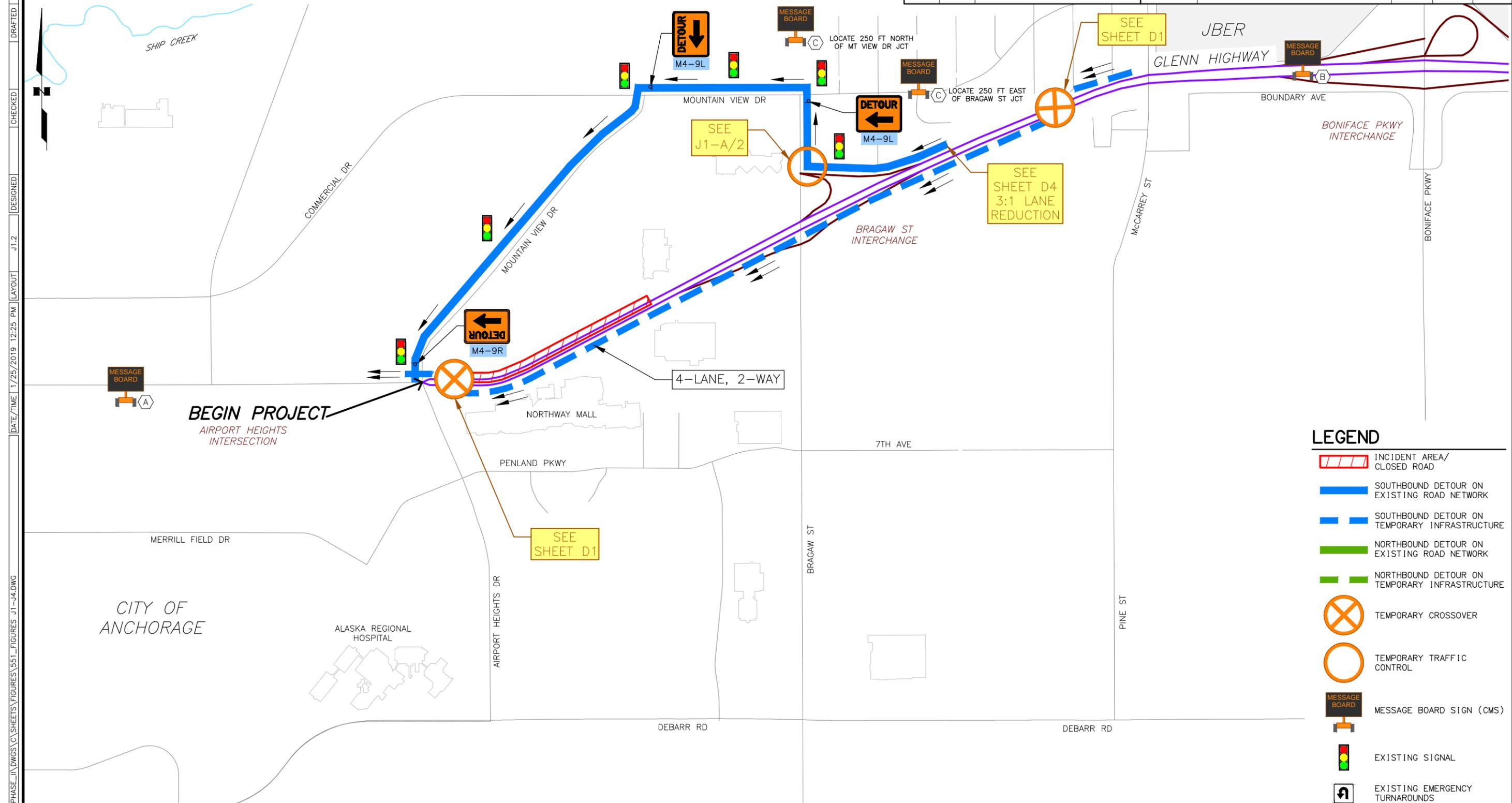
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY AIRPORT HEIGHTS DR TO BRAGAW ST INTERCHANGE NORTHBOUND CLOSURE

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 348-2373
CERT. OF AUTH. NO. AECL 1102

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_FIGURES J1-J4.DWG
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J1.2	J17-G



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

- DETOUR CMS MESSAGES**
- (A) NOT USED
 - (B) GLENN HWY CLOSED AT BRAGAW/FOLLOW SIGNED DETOUR ROUTE
 - (C) SB GLENN HWY CLOSED AT BRAGAW/USE MT VIEW DR
- CROSSOVER CMS MESSAGES**
- (A) LEFT LANE CLOSED AHEAD/GLENN HWY REDUCED TO TWO LANES
 - (B) GLENN HWY REDUCED TO TWO LANES/FOLLOW DETOUR

DETOUR NOTES

- DURING PEAK PERIODS, TRAFFIC SIGNALS DESIGNATED TO BE PLACED IN "FLASH MODE" WILL REQUIRE FLAGGERS & FLAGGER SIGNING. SEE SHEET D4. OTHER TRAFFIC SIGNALS ALONG THE DETOUR ROUTE MAY BE PLACED ON FLASH MODE AS DIRECTED BY THE ENGINEER.

- GENERAL NOTES**
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
 - LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

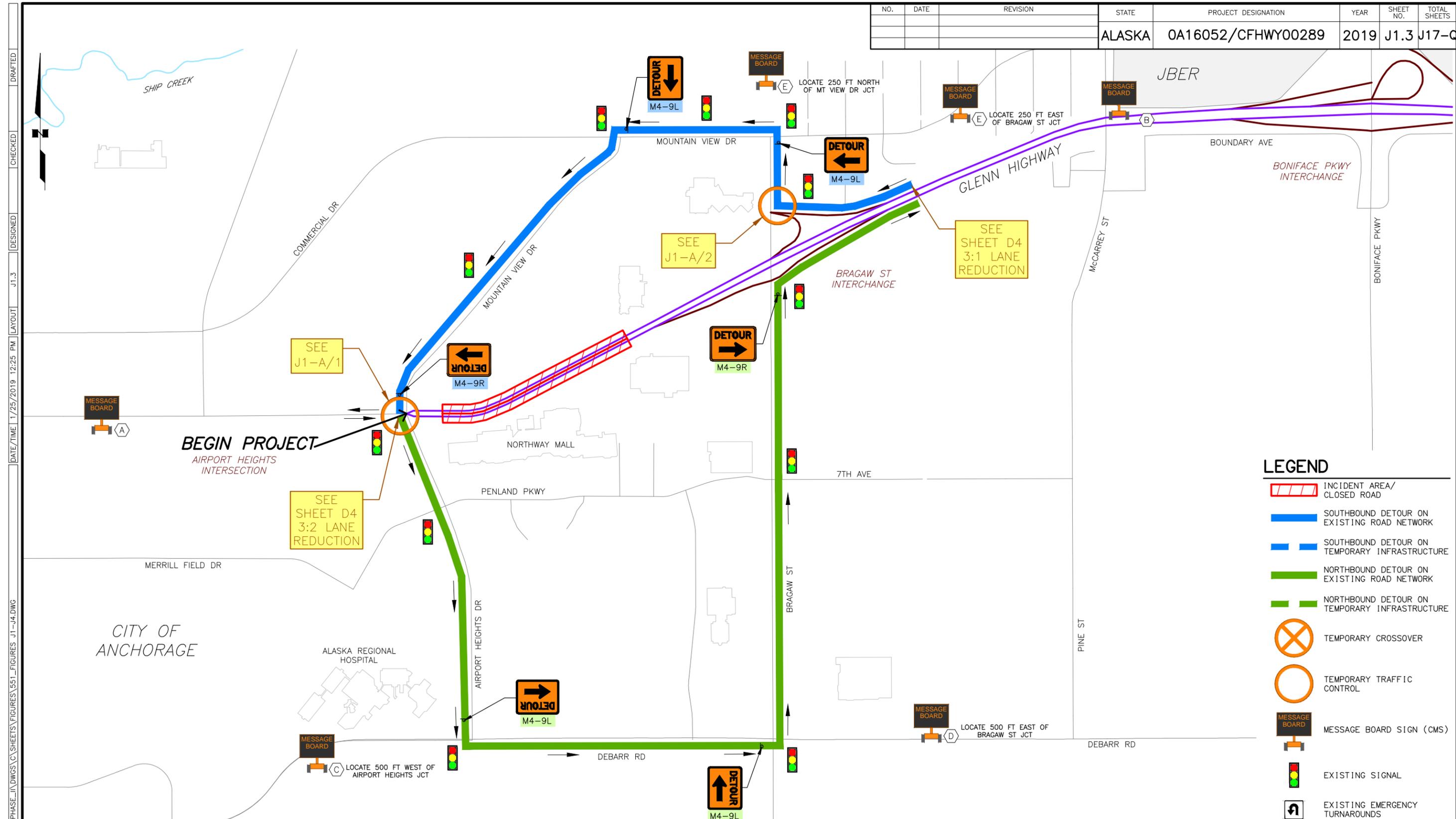
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY AIRPORT HEIGHTS DR TO BRAGAW ST INTERCHANGE SOUTHBOUND CLOSURE

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_FIGURES_J1-J4.DWG
 DATE/TIME 7/25/2019 12:25 PM LAYOUT J1.2
 DESIGNED J1.2
 CHECKED
 DRAFTED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J1.3	J17-G



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 DATE/TIME 7/25/2019 12:25 PM LAYOUT J1.3 DESIGNED CHECKED DRAFTED

DETOUR CMS MESSAGES

- (A) GLENN HWY CLOSED AT AIRPORT HEIGHTS/FOLLOW SIGNED DETOUR ROUTE
- (B) GLENN HWY CLOSED AT BRAGAW/FOLLOW SIGNED DETOUR ROUTE
- (C) NB GLENN HWY CLOSED AT AIRPORT HEIGHTS/FOLLOW DEBARR DETOUR ROUTE
- (D) SB GLENN HWY CLOSED AT BRAGAW/FOLLOW DEBARR DETOUR ROUTE
- (E) SB GLENN HWY CLOSED AT BRAGAW/USE MT VIEW DR

DETOUR NOTES

1. DURING PEAK PERIODS, TRAFFIC SIGNALS DESIGNATED TO BE PLACED IN "FLASH MODE" WILL REQUIRE FLAGGERS & FLAGGER SIGNING. SEE SHEET D4. OTHER TRAFFIC SIGNALS ALONG THE DETOUR ROUTE MAY BE PLACED ON FLASH MODE AS DIRECTED BY THE ENGINEER.

GENERAL NOTES

1. ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
2. HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
3. PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
4. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY
AIRPORT HEIGHTS DR TO
BRAGAW ST INTERCHANGE
FULL CLOSURE**

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_QUANTITIES_J1-Q10.DWG
 DATE/TIME 1/25/2019 1:14 PM LAYOUT J1-Q
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J1-Q	J17-Q

TRAFFIC CONTROL DEVICE SUMMARY: EXISTING ROAD NETWORK DETOUR

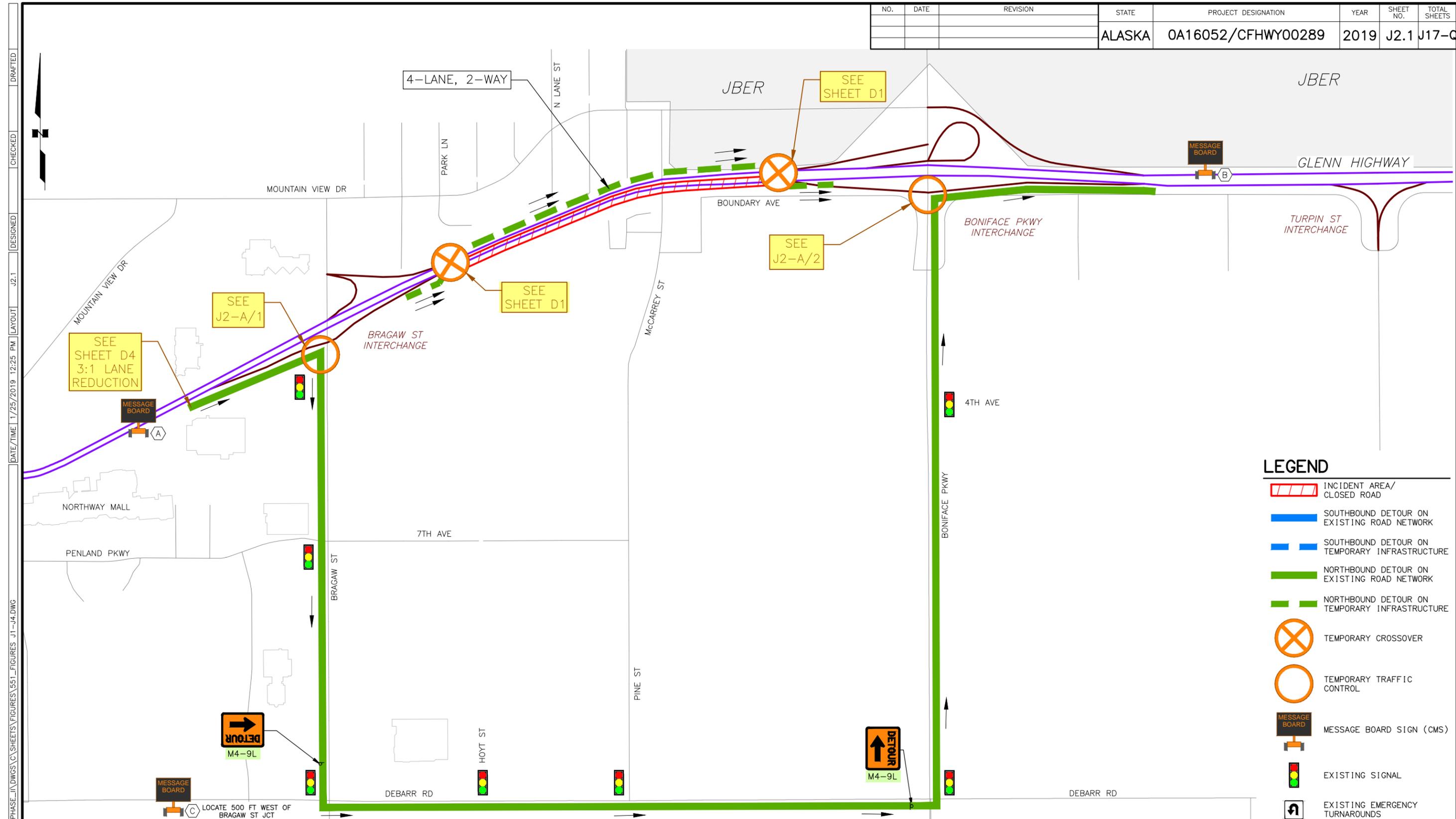
DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J1.1	J1.2	J1.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1			
ROAD WORK 1 MILE	CW20-1	2	2	4
RIGHT LANE CLOSED 1/2 MILE	CW20-5	2		2
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A		2	2
RIGHT LANE CLOSED AHEAD	CW20-5R			
LEFT LANE CLOSED AHEAD	CW20-5L			
RIGHT LANE REDUCTION SYMBOL	CW4-2R	2	4	6
LEFT LANE REDUCTION SYMBOL	CW4-2L			
ROAD CLOSED	R11-2	3	1	4
LANE CLOSED	R11-102	4	8	12
DETOUR (RT)	M4-10R	2		2
DETOUR (LT)	M4-10L			
DETOUR MARKER (RT)	M4-9R	2	2	4
DETOUR MARKER (LT)	M4-9L	2	2	4
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2			
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2	1		1
STOP	R1-1			
YIELD	R1-2			
STOP AHEAD	CW3-1			
YIELD AHEAD	CW3-2			
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L			
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R			
REVERSE CURVE LEFT	CW1-4L			
DO NOT PASS	R4-1			
TWO WAY TRAFFIC	CW6-3			
45 MPH ADVISORY	CW13-1			
35 MPH ADVISORY	CW13-1			
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-	7	9	16
DRUMS/TYPE II BARRICADES	-	30	80	110
CHANNELIZING DEVICES	-	117	120	237
ARROW BOARD	-	1	2	3
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-	1	2	3
CHANGEABLE MESSAGE BOARD	-	3	4	6
SURFACE MOUNT FLEXIBLE DELINEATORS	-			

TRAFFIC CONTROL DEVICE SUMMARY: CROSSOVER DETOUR

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J1.1	J1.2	J1.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1	2	2	
ROAD WORK 1 MILE	CW20-1	2	2	
RIGHT LANE CLOSED 1/2 MILE	CW20-5	4	4	
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A			
RIGHT LANE CLOSED AHEAD	CW20-5R			
LEFT LANE CLOSED AHEAD	CW20-5L			
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4	4	
LEFT LANE REDUCTION SYMBOL	CW4-2L			
ROAD CLOSED	R11-2	2	2	
LANE CLOSED	R11-102	8	8	
DETOUR (RT)	M4-10R			
DETOUR (LT)	M4-10L			
DETOUR MARKER (RT)	M4-9R			
DETOUR MARKER (LT)	M4-9L			
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2	2	2	
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1			
YIELD	R1-2			
STOP AHEAD	CW3-1			
YIELD AHEAD	CW3-2			
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L	2	2	
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R	2	2	
REVERSE CURVE LEFT	CW1-4L	2	2	
DO NOT PASS	R4-1			
TWO WAY TRAFFIC	CW6-3			
45 MPH ADVISORY	CW13-1	4	4	
35 MPH ADVISORY	CW13-1			
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-	14	14	
DRUMS/TYPE II BARRICADES	-	120	120	
CHANNELIZING DEVICES	-	200	200	
ARROW BOARD	-	2	2	
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-	3	3	
CHANGEABLE MESSAGE BOARD	-	2	2	
SURFACE MOUNT FLEXIBLE DELINEATORS	-	200	200	

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY AIRPORT HEIGHTS TO BRAGAW SEGMENT QUANTITIES	PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102
---	--

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J2.1	J17-G



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

- DETOUR CMS MESSAGES**
- (A) GLENN HWY CLOSED AT BRAGAW/FOLLOW SIGNED DETOUR ROUTE
 - (B) NOT USED
 - (C) NB GLENN HWY CLOSED AT BRAGAW/FOLLOW DEBARR RD DETOUR ROUTE
- CROSSOVER CMS MESSAGES**
- (A) GLENN HWY REDUCED TO TWO LANES/FOLLOW DETOUR
 - (B) LEFT LANE CLOSED AHEAD/GLENN HWY REDUCED TO TWO LANES
 - (C) NOT USED

DETOUR NOTES

- DURING PEAK PERIODS, TRAFFIC SIGNALS DESIGNATED TO BE PLACED IN "FLASH MODE" WILL REQUIRE FLAGGERS & FLAGGER SIGNING. SEE SHEET D4. OTHER TRAFFIC SIGNALS ALONG THE DETOUR ROUTE MAY BE PLACED ON FLASH MODE AS DIRECTED BY THE ENGINEER.

- GENERAL NOTES**
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
 - LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

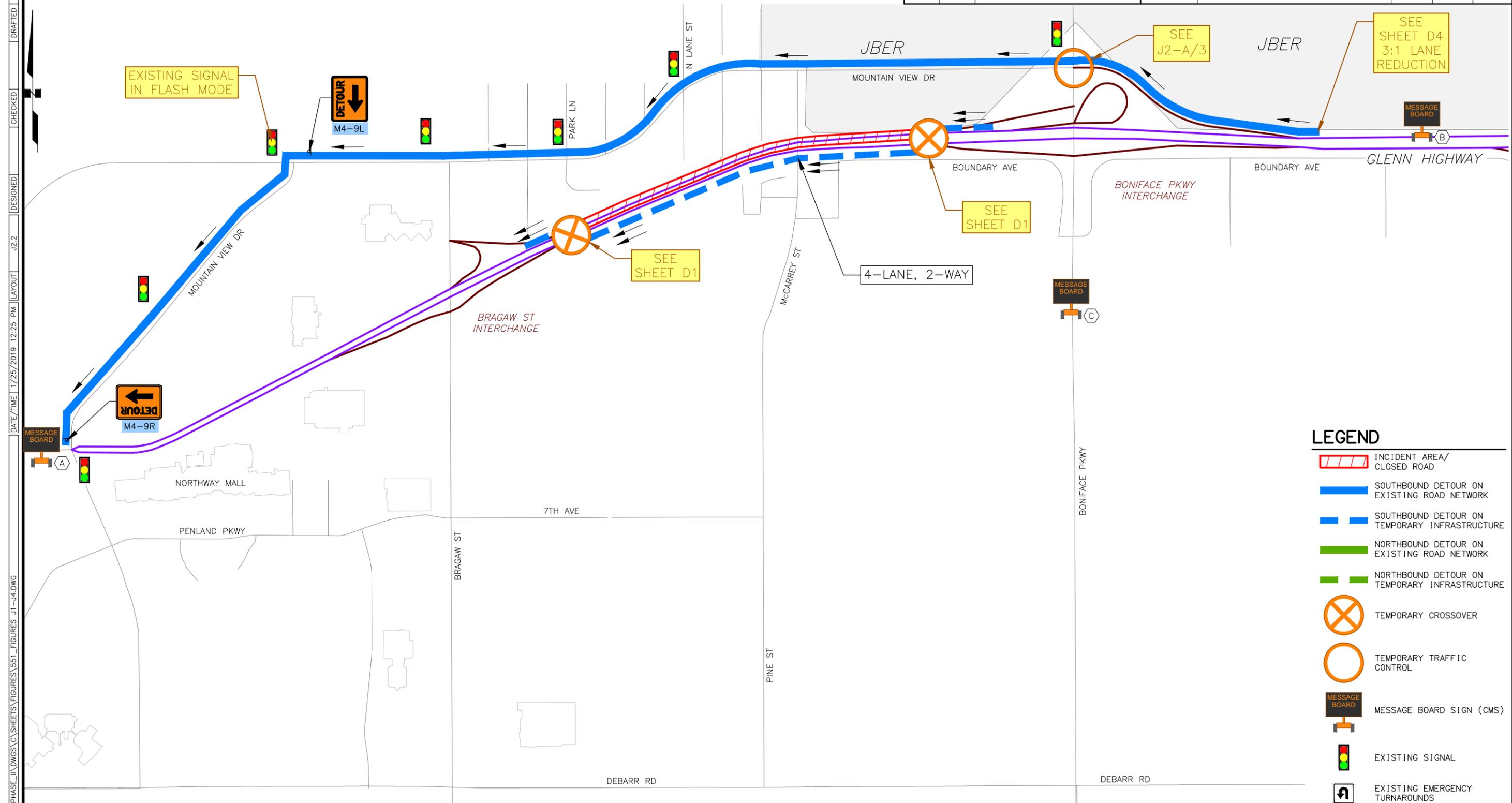
PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 3909 ARCTIC BLVD, SUITE 400
 ANCHORAGE, ALASKA 99503
 (907) 346-2373
 CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 BRAGAW ST TO BONIFACE
 PKWY INTERCHANGE
 NORTHBOUND CLOSURE**

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	J2.2	J17-G



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

- DETOUR CMS MESSAGES**
- (A) NOT USED
 - (B) GLENN HWY CLOSED AT BONIFACE/FOLLOW MT VIEW DR DETOUR ROUTE
 - (C) SB GLENN HWY CLOSED AT BONIFACE/FOLLOW MT VIEW DR DETOUR ROUTE
- CROSSOVER CMS MESSAGES**
- (A) LEFT LANE CLOSED AHEAD/GLENN HWY REDUCED TO TWO LANES
 - (B) GLENN HWY REDUCED TO TWO LANES/FOLLOW DETOUR
 - (C) NOT USED

DETOUR NOTES

- DURING PEAK PERIODS, TRAFFIC SIGNALS DESIGNATED TO BE PLACED IN "FLASH MODE" WILL REQUIRE FLAGGERS & FLAGGER SIGNING. SEE SHEET D4. OTHER TRAFFIC SIGNALS ALONG THE DETOUR ROUTE MAY BE PLACED ON FLASH MODE AS DIRECTED BY THE ENGINEER.

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 - PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
 - LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

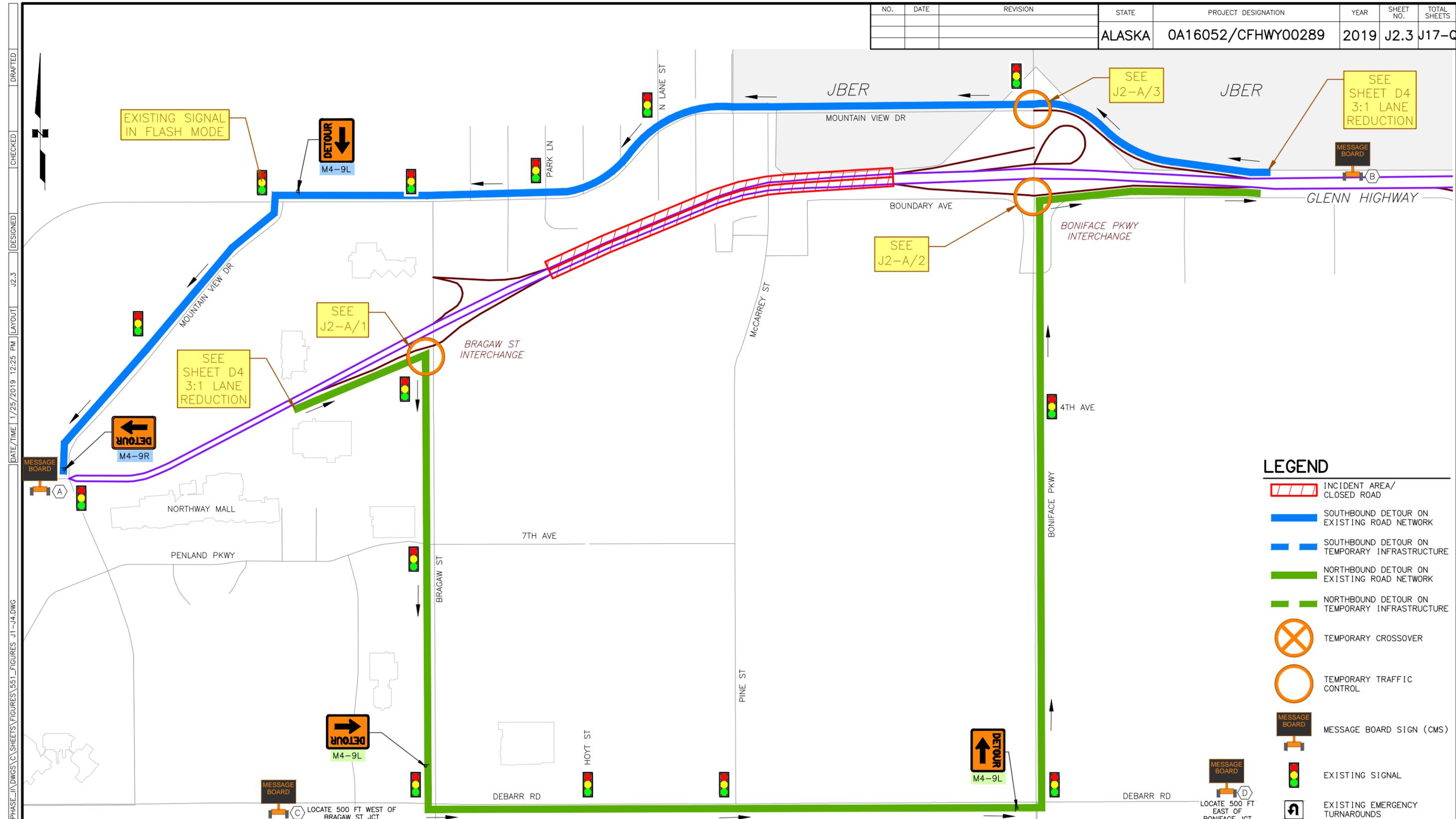
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY
BRAGAW ST TO BONIFACE
PKWY INTERCHANGE
SOUTHBOUND CLOSURE**

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 348-2373
CERT. OF AUTH. NO. AECL 1102

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_FIGURES_J1-J4.DWG
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J2.3	J17-G



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

- #### DETOUR CMS MESSAGES
- (A) GLENN HWY CLOSED AT BRAGAW/FOLLOW SIGNED DETOUR ROUTE
 - (B) GLENN HWY CLOSED AT BONIFACE/FOLLOW MT VIEW DR DETOUR ROUTE
 - (C) NB GLENN HWY CLOSED AT BRAGAW/FOLLOW DEBARR RD DETOUR ROUTE
 - (D) SB GLENN HWY CLOSED AT BONIFACE/FOLLOW MT VIEW DR DETOUR ROUTE

DETOUR NOTES

1. DURING PEAK PERIODS, TRAFFIC SIGNALS DESIGNATED TO BE PLACED IN "FLASH MODE" WILL REQUIRE FLAGGERS & FLAGGER SIGNING. SEE SHEET D4. OTHER TRAFFIC SIGNALS ALONG THE DETOUR ROUTE MAY BE PLACED ON FLASH MODE AS DIRECTED BY THE ENGINEER.

- #### GENERAL NOTES
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 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

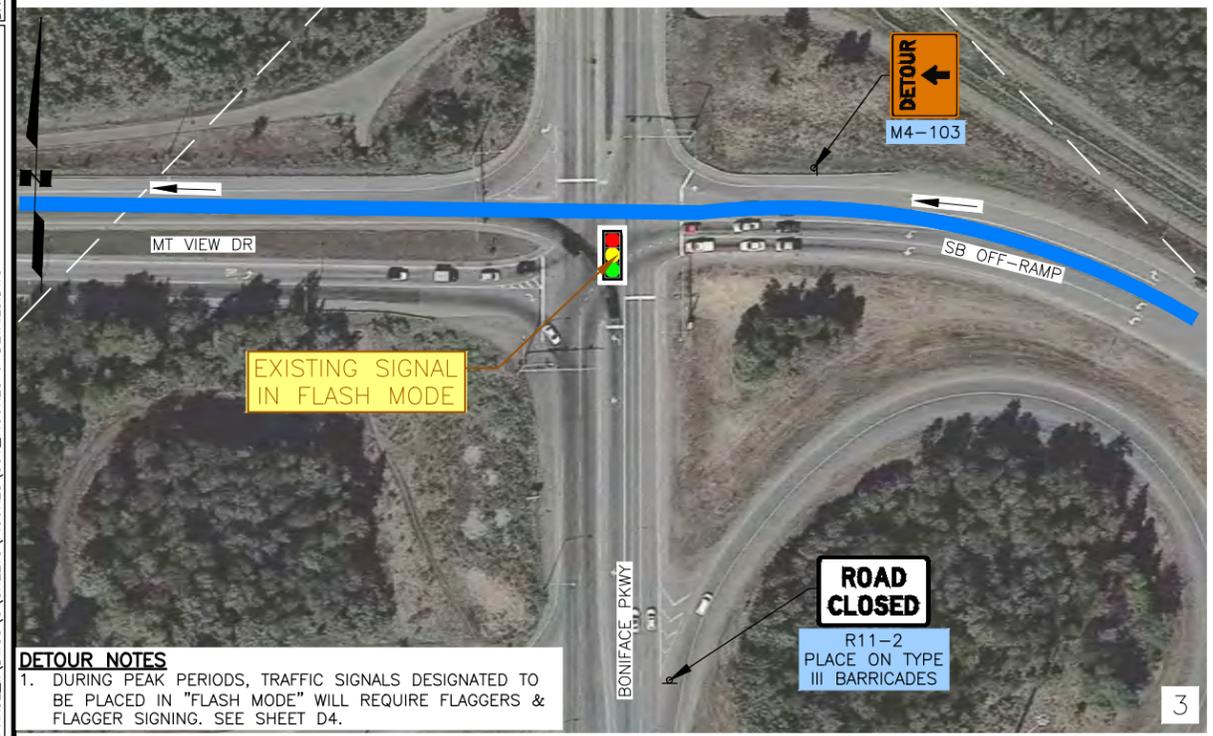
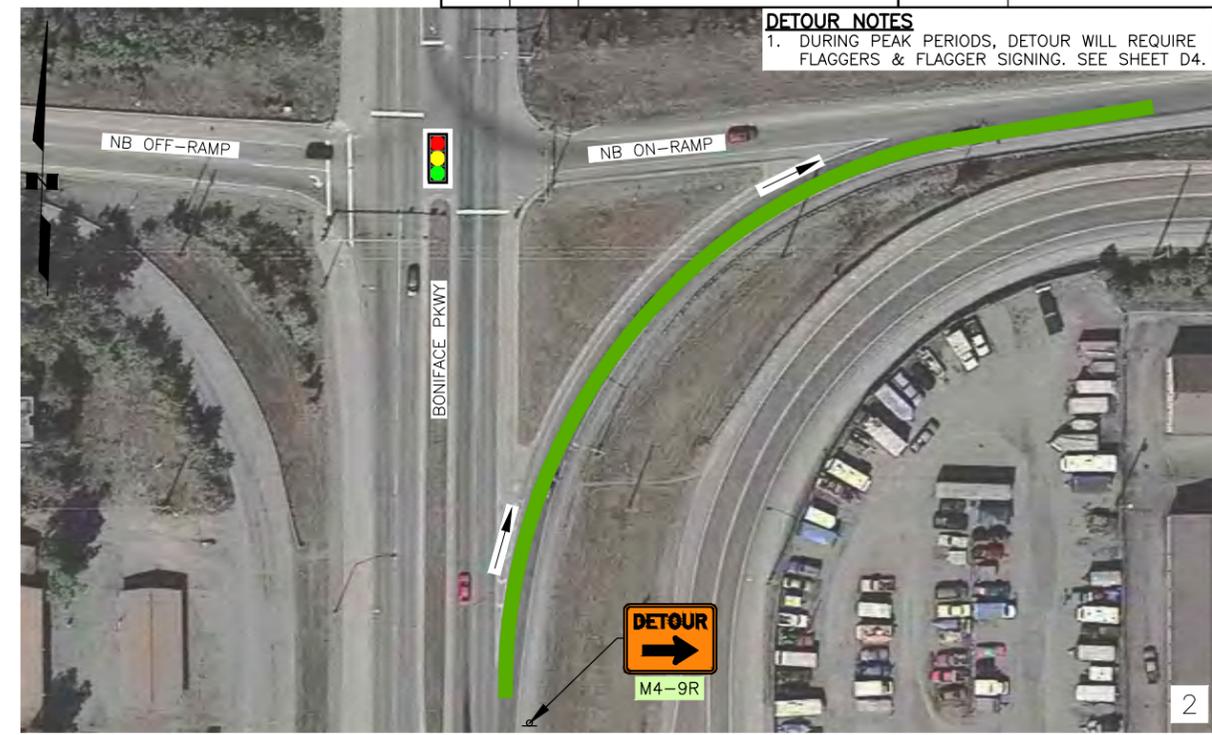
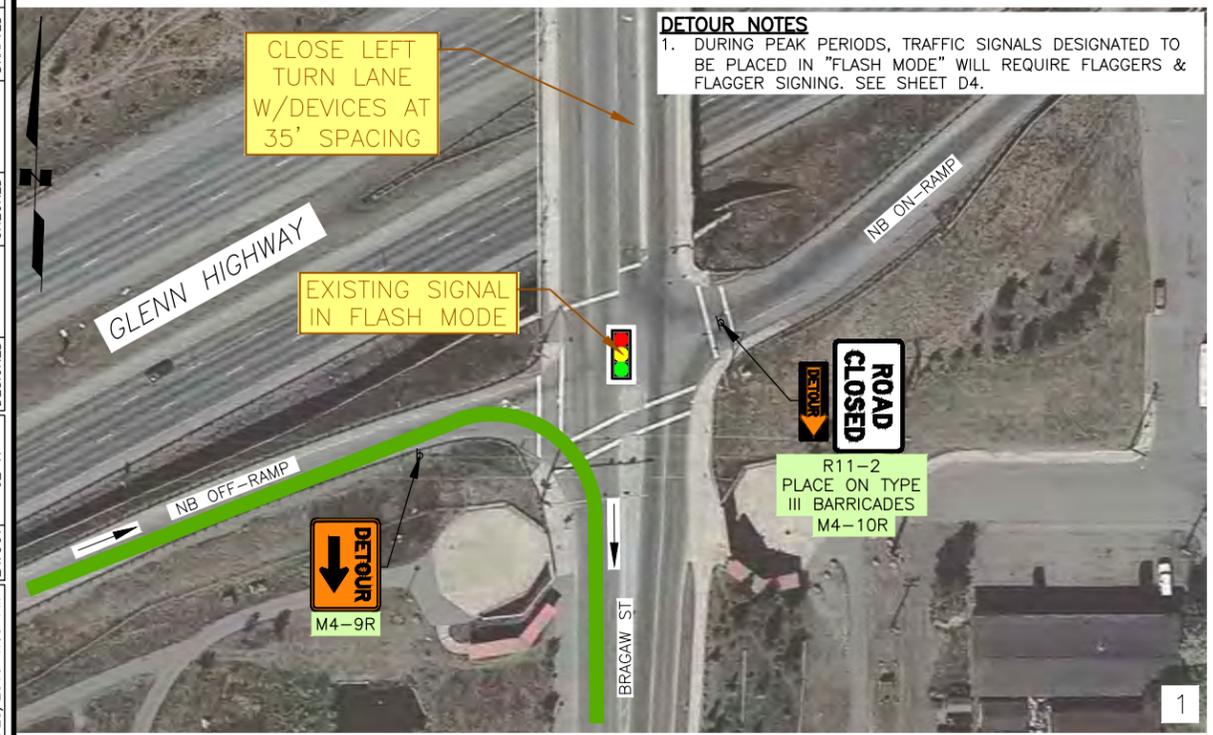
GLENN HIGHWAY BRAGAW ST TO BONIFACE PKWY INTERCHANGE FULL CLOSURE

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	J2-AJ17-G	

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_FIGURES J-DETAILS.DWG
 DATE/TIME 1/25/2019 1:09 PM
 LAYOUT J2-A
 DESIGNED
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LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- TEMPORARY STOP SIGN
- TEMPORARY YIELD SIGN
- TEMPORARY TRAFFIC CONTROL SIGNS
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- COVER EXISTING EXISTING SIGN TO BE COVERED

- GENERAL NOTES**
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY & REGULATORY SIGNING.
 - PLACE W3-1 SIGNS 500 FT IN ADVANCE OF R1-1 SIGNS.
 - PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 BRAGAW TO BONIFACE
 INTERCHANGE
 CLOSURE DETAILS**

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 3909 ARCTIC BLVD, SUITE 400
 ANCHORAGE, ALASKA 99503
 (907) 346-2373
 CERT. OF AUTH. NO. AECL 1102

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_QUANTITIES_J1-J10.DWG
 DATE/TIME 1/25/2019 1:14 PM LAYOUT J2-Q
 DESIGNED CHECKED DRAFTED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J2-Q	J17-G

TRAFFIC CONTROL DEVICE SUMMARY: EXISTING ROAD NETWORK DETOUR

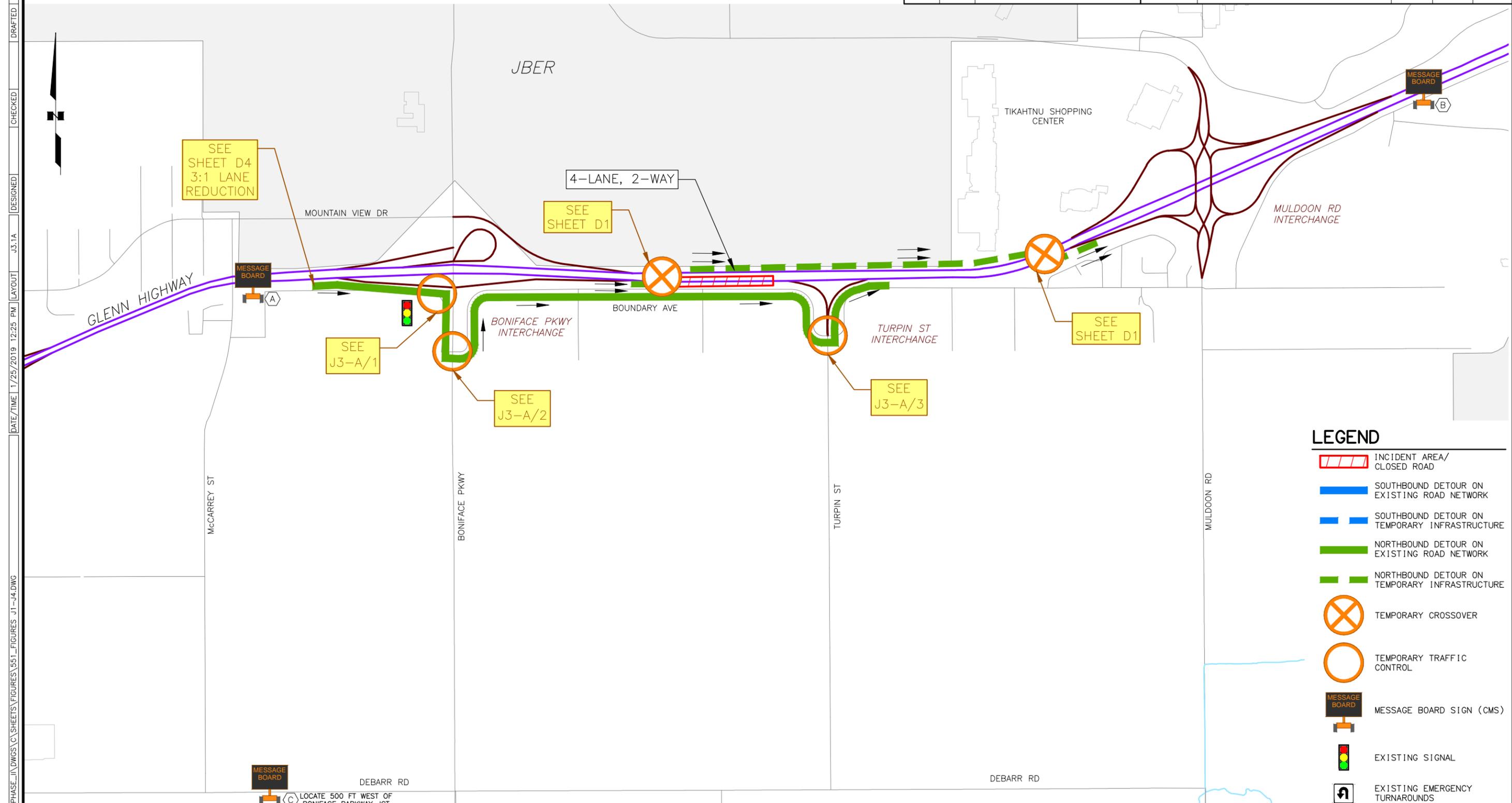
DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J2.1	J2.2	J2.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1			
ROAD WORK 1 MILE	CW20-1	2	2	4
RIGHT LANE CLOSED 1/2 MILE	CW20-5			
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A	2	2	4
RIGHT LANE CLOSED AHEAD	CW20-5R			
LEFT LANE CLOSED AHEAD	CW20-5L			
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4	4	8
LEFT LANE REDUCTION SYMBOL	CW4-2L			
ROAD CLOSED	R11-2	1	1	2
LANE CLOSED	R11-102	8	8	16
DETOUR (RT)	M4-10R	1		1
DETOUR (LT)	M4-10L			
DETOUR MARKER (RT)	M4-9R	2	1	3
DETOUR MARKER (LT)	M4-9L	2	1	3
DETOUR (UP)	M4-103		1	1
DETOUR AHEAD	CW20-2			
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1			
YIELD	R1-2			
STOP AHEAD	CW3-1			
YIELD AHEAD	CW3-2			
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L			
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R			
REVERSE CURVE LEFT	CW1-4L			
DO NOT PASS	R4-1			
TWO WAY TRAFFIC	CW6-3			
45 MPH ADVISORY	CW13-1			
35 MPH ADVISORY	CW13-1			
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-	9	9	18
DRUMS/TYPE II BARRICADES	-	80	80	160
CHANNELIZING DEVICES	-	130	120	250
ARROW BOARD	-	2	2	4
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-	2	2	4
CHANGEABLE MESSAGE BOARD	-	3	3	4
SURFACE MOUNT FLEXIBLE DELINEATORS	-			

TRAFFIC CONTROL DEVICE SUMMARY: CROSSOVER DETOUR

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J2.1	J2.2	J2.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1	2	2	
ROAD WORK 1 MILE	CW20-1	2	2	
RIGHT LANE CLOSED 1/2 MILE	CW20-5	4	4	
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A			
RIGHT LANE CLOSED AHEAD	CW20-5R			
LEFT LANE CLOSED AHEAD	CW20-5L			
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4	4	
LEFT LANE REDUCTION SYMBOL	CW4-2L			
ROAD CLOSED	R11-2	2	2	
LANE CLOSED	R11-102	8	8	
DETOUR (RT)	M4-10R			
DETOUR (LT)	M4-10L			
DETOUR MARKER (RT)	M4-9R			
DETOUR MARKER (LT)	M4-9L			
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2	2	2	
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1			
YIELD	R1-2			
STOP AHEAD	CW3-1			
YIELD AHEAD	CW3-2			
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L	2	2	
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R	2	2	
REVERSE CURVE LEFT	CW1-4L	2	2	
DO NOT PASS	R4-1			
TWO WAY TRAFFIC	CW6-3			
45 MPH ADVISORY	CW13-1	4	4	
35 MPH ADVISORY	CW13-1			
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-	14	14	
DRUMS/TYPE II BARRICADES	-	120	120	
CHANNELIZING DEVICES	-	200	200	
ARROW BOARD	-	2	2	
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-	3	3	
CHANGEABLE MESSAGE BOARD	-	2	2	
SURFACE MOUNT FLEXIBLE DELINEATORS	-	200	200	

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY BRAGAW TO BONIFACE SEGMENT QUANTITIES
--	--

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	J3.1A	J17-G



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

- DETOUR CMS MESSAGES**
- (A) GLENN HWY CLOSED AT BONIFACE/FOLLOW SIGNED DETOUR ROUTE
 - (B) NOT USED
 - (C) NB GLENN HWY CLOSED AT BONIFACE/FOLLOW DEBARR RD DETOUR ROUTE
- CROSSOVER CMS MESSAGES**
- (A) GLENN HWY REDUCED TO TWO LANES/FOLLOW DETOUR
 - (B) LEFT LANE CLOSED AHEAD/GLENN HWY REDUCED TO TWO LANES
 - (C) NOT USED

DETOUR NOTES

1. DURING PEAK PERIODS, TRAFFIC SIGNALS DESIGNATED TO BE PLACED IN "FLASH MODE" WILL REQUIRE FLAGGERS & FLAGGER SIGNING. SEE SHEET D4.

GENERAL NOTES

1. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

PLANS DEVELOPED BY:
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 3909 ARCTIC BLVD, SUITE 400
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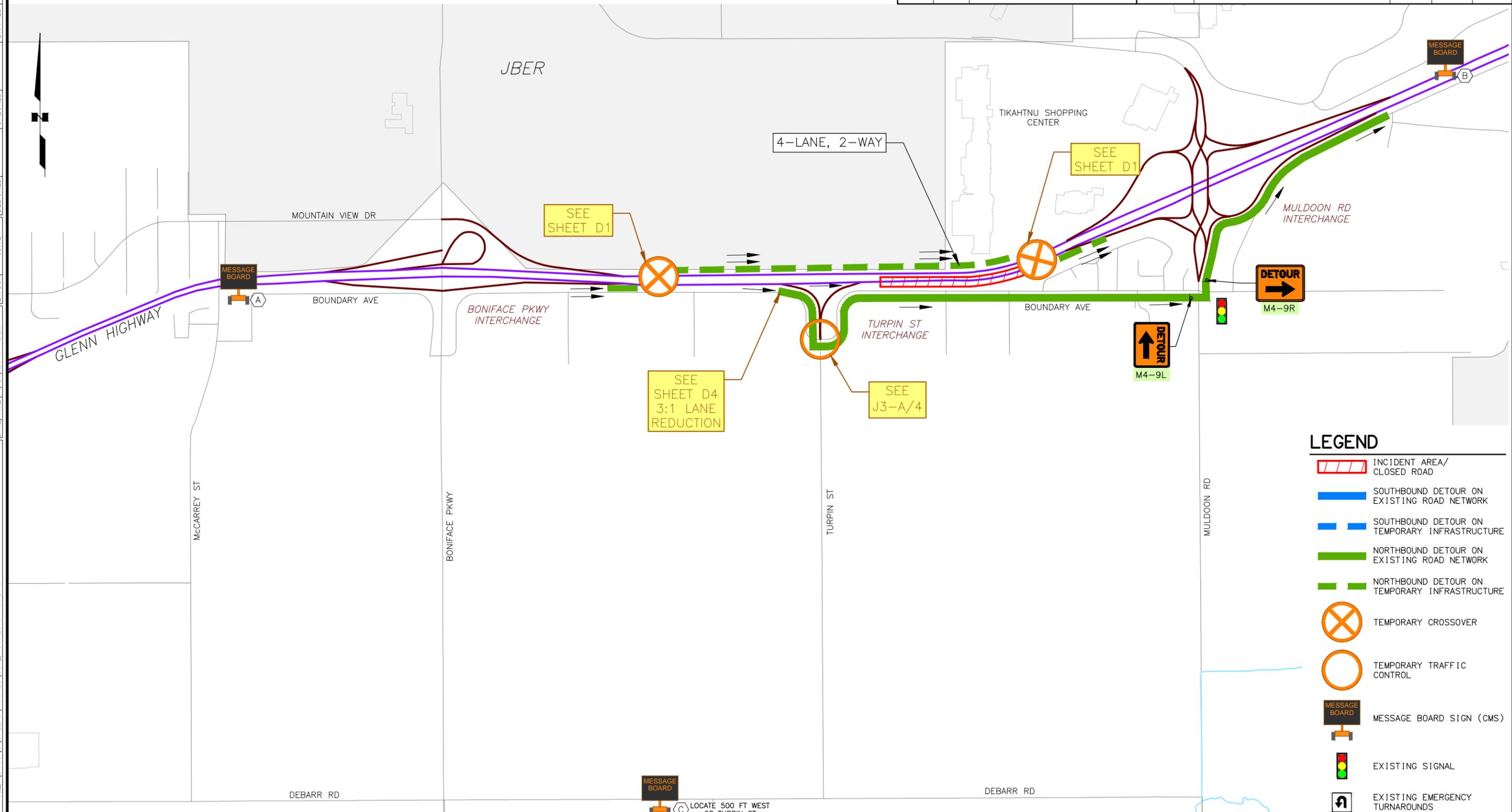
STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

GLENN HIGHWAY BONIFACE PKWY TO TURPIN ST INTERCHANGE NORTHBOUND CLOSURE

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	J3.1BJ17-G	

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 DATE/TIME 1/25/2019 12:25 PM
 LAYOUT J3.1B
 DESIGNED
 CHECKED
 DRAFTED



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

- DETOUR CMS MESSAGES**
- (A) GLENN HWY CLOSED AT TURPIN ST/FOLLOW SIGNED DETOUR ROUTE
 - (B) NOT USED
 - (C) NB GLENN HWY CLOSED AT TURPIN ST/USE DEBARR TO MULDOON
- CROSSOVER CMS MESSAGES**
- (A) GLENN HWY REDUCED TO TWO LANES/FOLLOW DETOUR
 - (B) LEFT LANE CLOSED AHEAD/GLENN HWY REDUCED TO TWO LANES
 - (C) NOT USED

DETOUR NOTES

- DURING PEAK PERIODS, TRAFFIC SIGNALS DESIGNATED TO BE PLACED IN "FLASH MODE" WILL REQUIRE FLAGGERS & FLAGGER SIGNING. SEE SHEET D4. OTHER TRAFFIC SIGNALS ALONG THE DETOUR ROUTE MAY BE PLACED ON FLASH MODE AS DIRECTED BY THE ENGINEER.

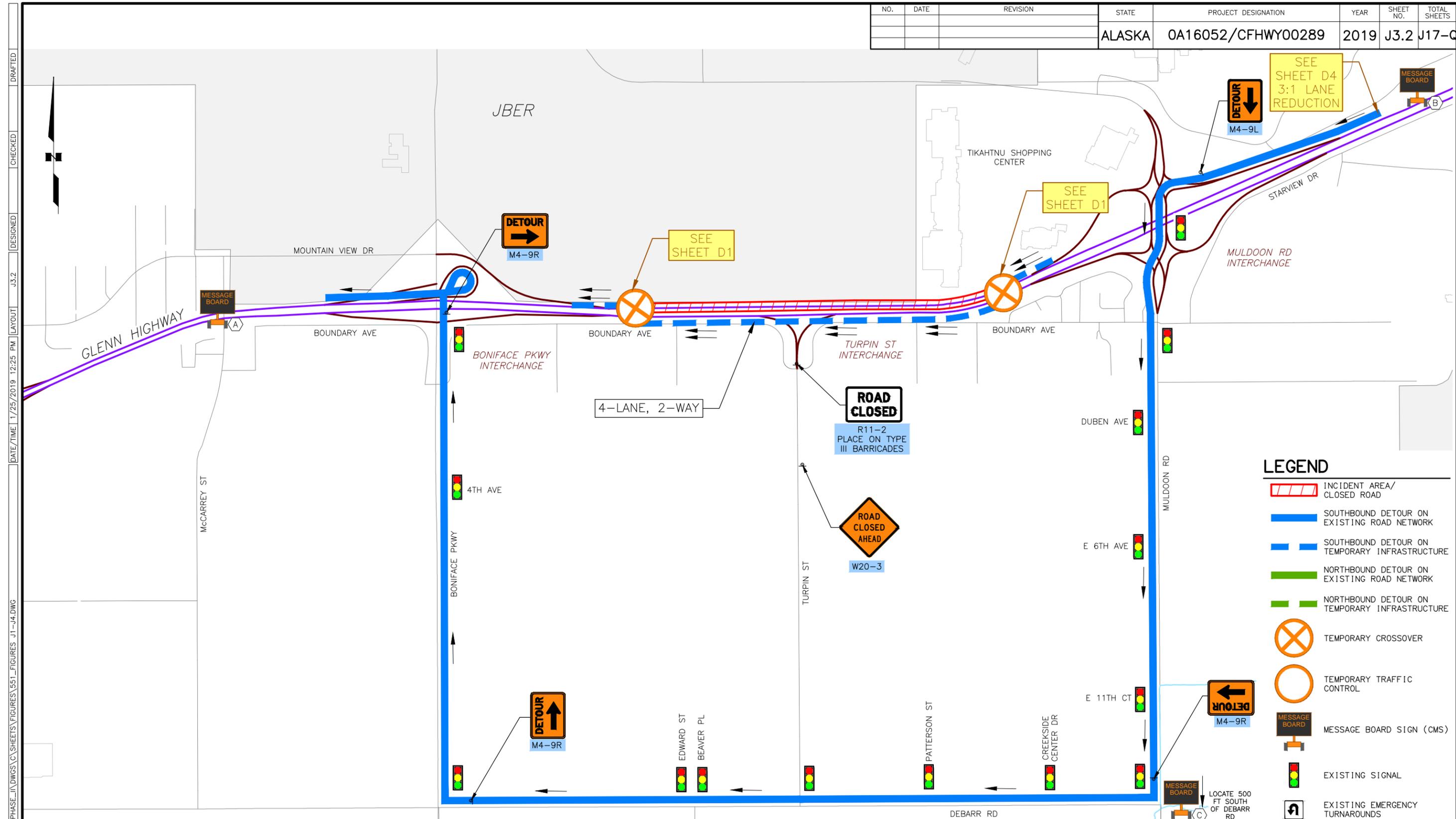
- GENERAL NOTES**
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
 - LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY TURPIN ST TO MULDOON RD INTERCHANGE NORTHBOUND CLOSURE

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 3909 ARCTIC BLVD, SUITE 400
 ANCHORAGE, ALASKA 99503
 (907) 348-2373
 CERT. OF AUTH. NO. AECL 1102

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J3.2	J17-G



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

- DETOUR CMS MESSAGES**
- (A) NOT USED
 - (B) GLENN HWY CLOSED AT MULDOON/FOLLOW SIGNED DETOUR ROUTE
 - (C) SB GLENN HWY CLOSED AT MULDOON/FOLLOW DEBARR RD DETOUR ROUTE
- CROSSOVER CMS MESSAGES**
- (A) LEFT LANE CLOSED AHEAD/GLENN HWY REDUCED TO TWO LANES
 - (B) GLENN HWY REDUCED TO TWO LANES/FOLLOW DETOUR
 - (C) NOT USED

DETOUR NOTES

1. DURING PEAK PERIODS, TRAFFIC SIGNALS DESIGNATED TO BE PLACED IN "FLASH MODE" WILL REQUIRE FLAGGERS & FLAGGER SIGNING. SEE SHEET D4. OTHER TRAFFIC SIGNALS ALONG THE DETOUR ROUTE MAY BE PLACED ON FLASH MODE AS DIRECTED BY THE ENGINEER.

- GENERAL NOTES**
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
 - LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

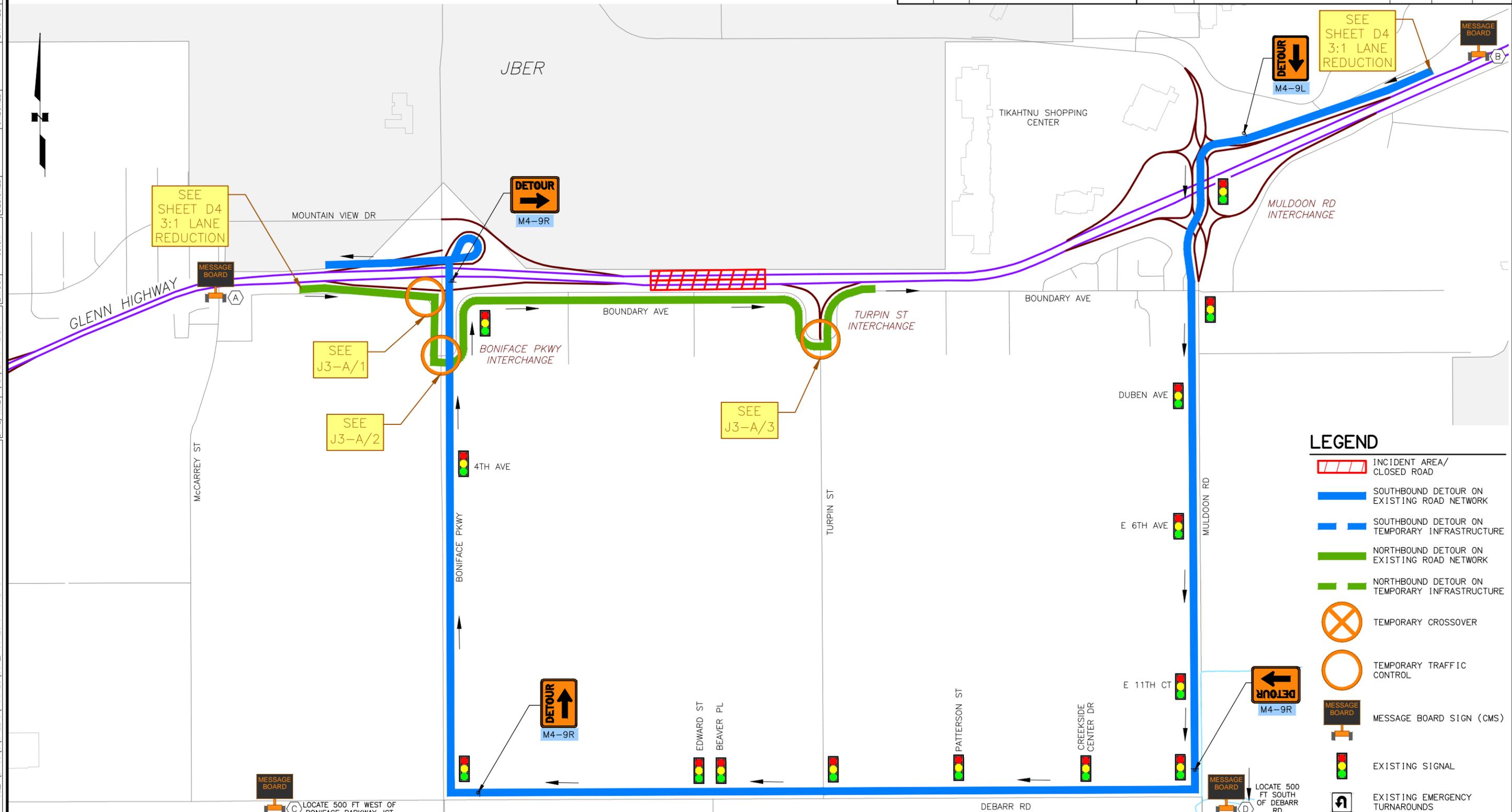
GLENN HIGHWAY BONIFACE PKWY TO MULDOON RD INTERCHANGE SOUTHBOUND CLOSURE

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J3.3AJ17-G	

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 DATE/TIME 1/25/2019 12:25 PM LAYOUT J3.3A
 DESIGNED CHECKED DRAFTED



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

- #### DETOUR CMS MESSAGES
- (A) GLENN HWY CLOSED AT BONIFACE/FOLLOW SIGNED DETOUR ROUTE
 - (B) GLENN HWY CLOSED AT MULDOON/FOLLOW SIGNED DETOUR ROUTE
 - (C) NB GLENN HWY CLOSED AT BONIFACE/FOLLOW DEBARR RD DETOUR ROUTE
 - (D) SB GLENN HWY CLOSED AT MULDOON/FOLLOW DEBARR RD DETOUR ROUTE

DETOUR NOTES

1. DURING PEAK PERIODS, TRAFFIC SIGNALS DESIGNATED TO BE PLACED IN "FLASH MODE" WILL REQUIRE FLAGGERS & FLAGGER SIGNING. SEE SHEET D4. OTHER TRAFFIC SIGNALS ALONG THE DETOUR ROUTE MAY BE PLACED ON FLASH MODE AS DIRECTED BY THE ENGINEER.

GENERAL NOTES

1. ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
2. HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
3. PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
4. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

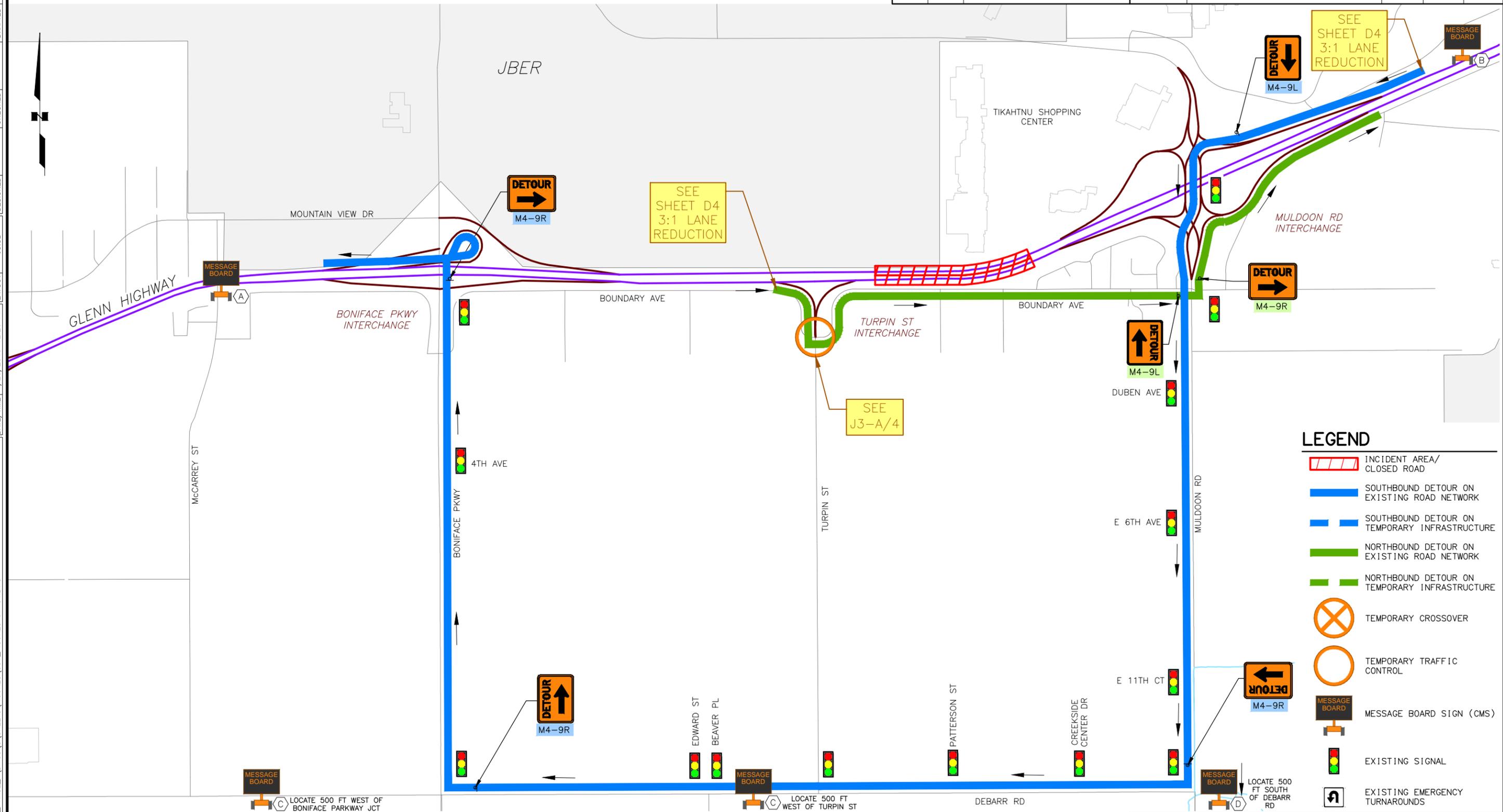
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY BONIFACE PKWY TO TURPIN ST INTERCHANGE FULL CLOSURE

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J3.3BU17-G	

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 DESIGNED J3.3B
 CHECKED
 DRAFTED



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

- #### DETOUR CMS MESSAGES
- (A) GLENN HWY CLOSED AT TURPIN ST/FOLLOW SIGNED DETOUR ROUTE
 - (B) GLENN HWY CLOSED AT MULDOON/FOLLOW SIGNED DETOUR ROUTE
 - (C) NB GLENN HWY CLOSED AT TURPIN ST/FOLLOW DEBARR RD DETOUR ROUTE
 - (D) SB GLENN HWY CLOSED AT MULDOON/FOLLOW DEBARR RD DETOUR ROUTE

DETOUR NOTES

1. DURING PEAK PERIODS, TRAFFIC SIGNALS DESIGNATED TO BE PLACED IN "FLASH MODE" WILL REQUIRE FLAGGERS & FLAGGER SIGNING. SEE SHEET D4. OTHER TRAFFIC SIGNALS ALONG THE DETOUR ROUTE MAY BE PLACED ON FLASH MODE AS DIRECTED BY THE ENGINEER.

- #### GENERAL NOTES
1. ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 2. HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 3. PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
 4. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

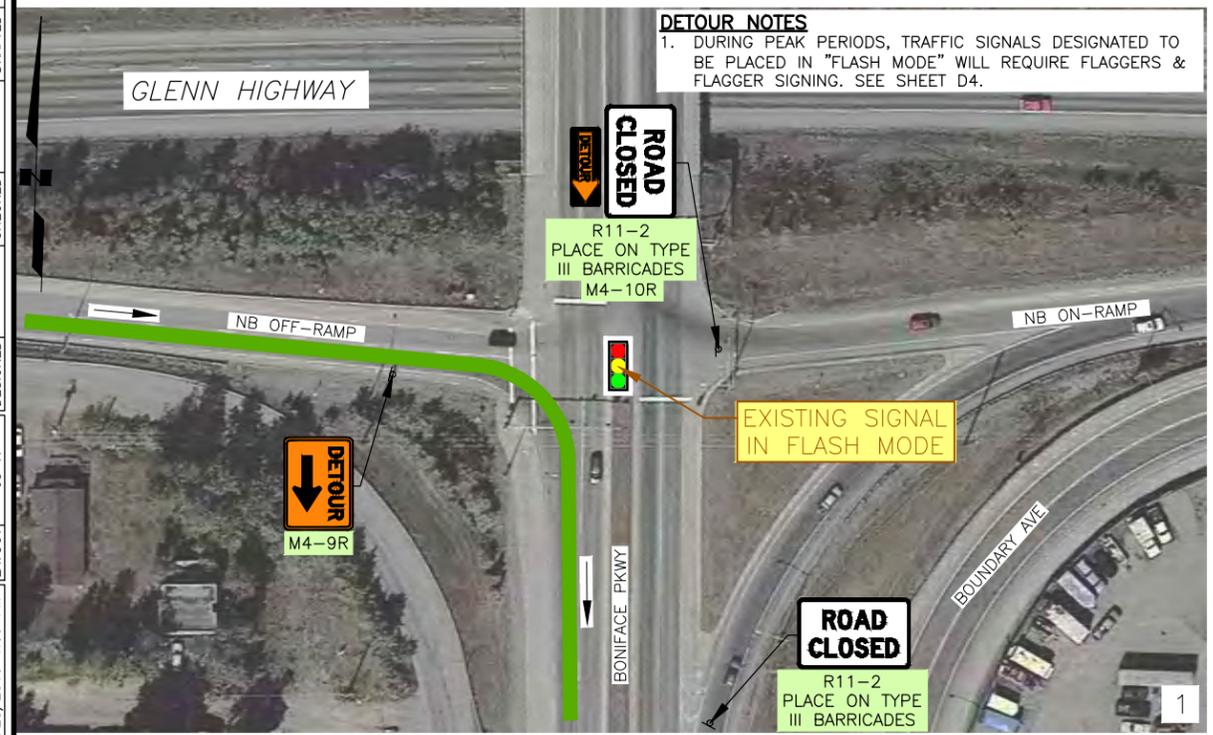
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY TURPIN ST TO MULDOON RD INTERCHANGE FULL CLOSURE

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J3-AJ17-G	

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 DATE/TIME 1/25/2019 1:09 PM LAYOUT J3-A
 DESIGNED CHECKED DRAFTED



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- TEMPORARY STOP SIGN
- TEMPORARY YIELD SIGN
- TEMPORARY TRAFFIC CONTROL SIGNS
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING SIGN TO BE COVERED

GENERAL NOTES

- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
- HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY & REGULATORY SIGNING.
- PLACE W3-1 SIGNS 500 FT IN ADVANCE OF R1-1 SIGNS.
- PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 BONIFACE TO MULDOON
 INTERCHANGE
 CLOSURE DETAILS**

PLANS DEVELOPED BY:
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 3909 ARCTIC BLVD, SUITE 400
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 (907) 346-2373
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FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_QUANTITIES_J1-J10.DWG
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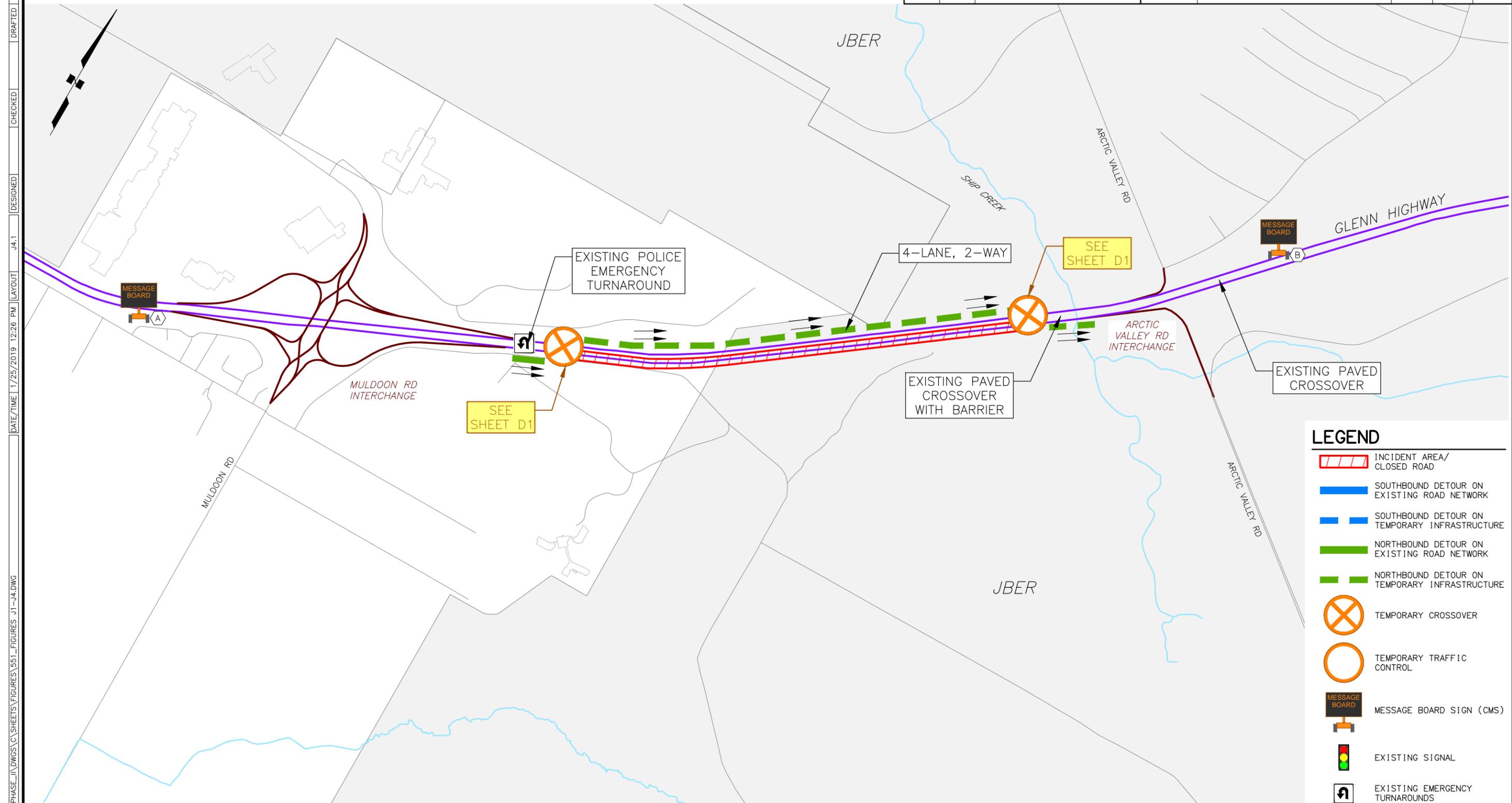
NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J3-Q	J17-Q

TRAFFIC CONTROL DEVICE SUMMARY: EXISTING ROAD NETWORK DETOUR						
DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J3.1A	J3.1B	J3.2	J3.3A	J3.3B
		QTY	QTY	QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			1		
ROAD WORK AHEAD	CW20-1					
ROAD WORK 1 MILE	CW20-1	2	2	2	4	4
RIGHT LANE CLOSED 1/2 MILE	CW20-5					
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A	2	2	2	4	4
RIGHT LANE CLOSED AHEAD	CW20-5R					
LEFT LANE CLOSED AHEAD	CW20-5L					
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4	4	4	8	8
LEFT LANE REDUCTION SYMBOL	CW4-2L					
ROAD CLOSED	R11-2	2	1	1	2	1
LANE CLOSED	R11-102	8	8	8	16	16
DETOUR (RT)	M4-10R	1			1	
DETOUR (LT)	M4-10L					
DETOUR MARKER (RT)	M4-9R	1	1	3	4	4
DETOUR MARKER (LT)	M4-9L	2	2	1	3	3
DETOUR (UP)	M4-103					
DETOUR AHEAD	CW20-2					
NO RIGHT TURN	R3-1					
NO LEFT TURN	R3-2					
STOP	R1-1	3	1		3	1
YIELD	R1-2					
STOP AHEAD	CW3-1	3	1		3	1
YIELD AHEAD	CW3-2					
RIGHT ARROW	CW1-6R					
LEFT ARROW	CW1-6L					
RIGHT TURN	CW1-1R					
LEFT TURN	CW1-1L					
REVERSE CURVE RIGHT	CW1-4R					
REVERSE CURVE LEFT	CW1-4L					
DO NOT PASS	R4-1					
TWO WAY TRAFFIC	CW6-3					
45 MPH ADVISORY	CW13-1					
35 MPH ADVISORY	CW13-1					
25 MPH ADVISORY	CW13-1					
LOCAL TRAFFIC ONLY	SPECIAL					
TYPE III BARRICADES	-	10	9	9	18	17
DRUMS/TYPE II BARRICADES	-	80	80	80	160	160
CHANNELIZING DEVICES	-	120	120	120	240	240
ARROW BOARD	-	2	2	2	4	4
PORTABLE CONCRETE BARRIERS	-					
TEMPORARY CRASH CUSHION	-					
PORTABLE LIGHTING	-	2	2	2	4	4
CHANGEABLE MESSAGE BOARD	-	3	3	3	4	5
SURFACE MOUNT FLEXIBLE DELINEATORS	-					

TRAFFIC CONTROL DEVICE SUMMARY: CROSSOVER DETOUR						
DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J3.1A	J3.1B	J3.2	J3.3A	J3.3B
		QTY	QTY	QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			1		
ROAD WORK AHEAD	CW20-1	2	2	2	2	
ROAD WORK 1 MILE	CW20-1	2	2	2	2	
RIGHT LANE CLOSED 1/2 MILE	CW20-5	4	4	4	4	
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A					
RIGHT LANE CLOSED AHEAD	CW20-5R					
LEFT LANE CLOSED AHEAD	CW20-5L					
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4	4	4	4	
LEFT LANE REDUCTION SYMBOL	CW4-2L					
ROAD CLOSED	R11-2	2	2	3	2	
LANE CLOSED	R11-102	8	8	8	8	
DETOUR (RT)	M4-10R					
DETOUR (LT)	M4-10L					
DETOUR MARKER (RT)	M4-9R					
DETOUR MARKER (LT)	M4-9L					
DETOUR (UP)	M4-103					
DETOUR AHEAD	CW20-2	2	2	2	2	
NO RIGHT TURN	R3-1					
NO LEFT TURN	R3-2					
STOP	R1-1					
YIELD	R1-2					
STOP AHEAD	CW3-1					
YIELD AHEAD	CW3-2					
RIGHT ARROW	CW1-6R					
LEFT ARROW	CW1-6L	2	2	2	2	
RIGHT TURN	CW1-1R					
LEFT TURN	CW1-1L					
REVERSE CURVE RIGHT	CW1-4R	2	2	2	2	
REVERSE CURVE LEFT	CW1-4L	2	2	2	2	
DO NOT PASS	R4-1					
TWO WAY TRAFFIC	CW6-3					
45 MPH ADVISORY	CW13-1	4	4	4	4	
35 MPH ADVISORY	CW13-1					
25 MPH ADVISORY	CW13-1					
LOCAL TRAFFIC ONLY	SPECIAL					
TYPE III BARRICADES	-	14	14	15	14	
DRUMS/TYPE II BARRICADES	-	120	120	120	120	
CHANNELIZING DEVICES	-	200	200	200	200	
ARROW BOARD	-	2	2	2	2	
PORTABLE CONCRETE BARRIERS	-					
TEMPORARY CRASH CUSHION	-					
PORTABLE LIGHTING	-	3	3	3	3	
CHANGEABLE MESSAGE BOARD	-	2	2	2	2	
SURFACE MOUNT FLEXIBLE DELINEATORS	-	200	200	200	200	

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY BONIFACE TO MULDOON SEGMENT QUANTITIES
--	---

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J4.1	J17-G



FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_FIGURES_J1-J4.DWG
 DATE/TIME 7/25/2019 12:26 PM LAYOUT J4.1
 DESIGNED J4.1
 CHECKED
 DRAFTED

CROSSOVER CMS MESSAGES
 (A) GLENN HWY REDUCED TO TWO LANES/FOLLOW DETOUR
 (B) LEFT LANE CLOSED AHEAD/GLENN HWY REDUCED TO TWO LANES

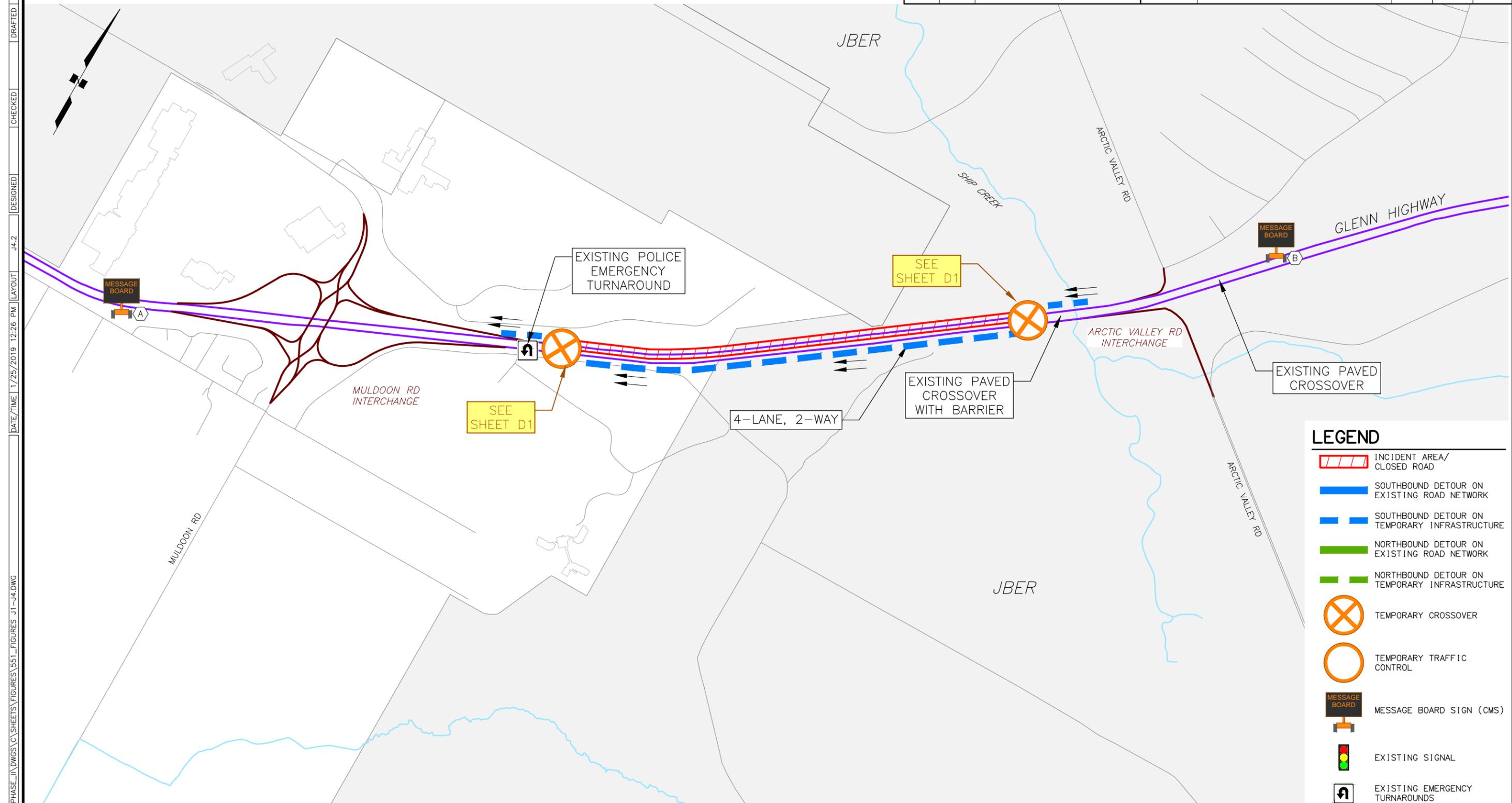
DETOUR NOTES
 1. ALL DETOURS REQUIRE TEMPORARY INFRASTRUCTURE.

GENERAL NOTES
 1. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 3909 ARCTIC BLVD, SUITE 400
 ANCHORAGE, ALASKA 99503
 (907) 346-2373
 CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
**GLENN HIGHWAY
 MULDOON RD TO ARCTIC
 VALLEY RD INTERCHANGE
 NORTHBOUND CLOSURE**

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J4.2	J17-G



CROSSOVER CMS MESSAGES
 (A) LEFT LANE CLOSED AHEAD/GLENN HWY REDUCED TO TWO LANES
 (B) GLENN HWY REDUCED TO TWO LANES/FOLLOW DETOUR

DETOUR NOTES
 1. ALL DETOURS REQUIRE TEMPORARY INFRASTRUCTURE.

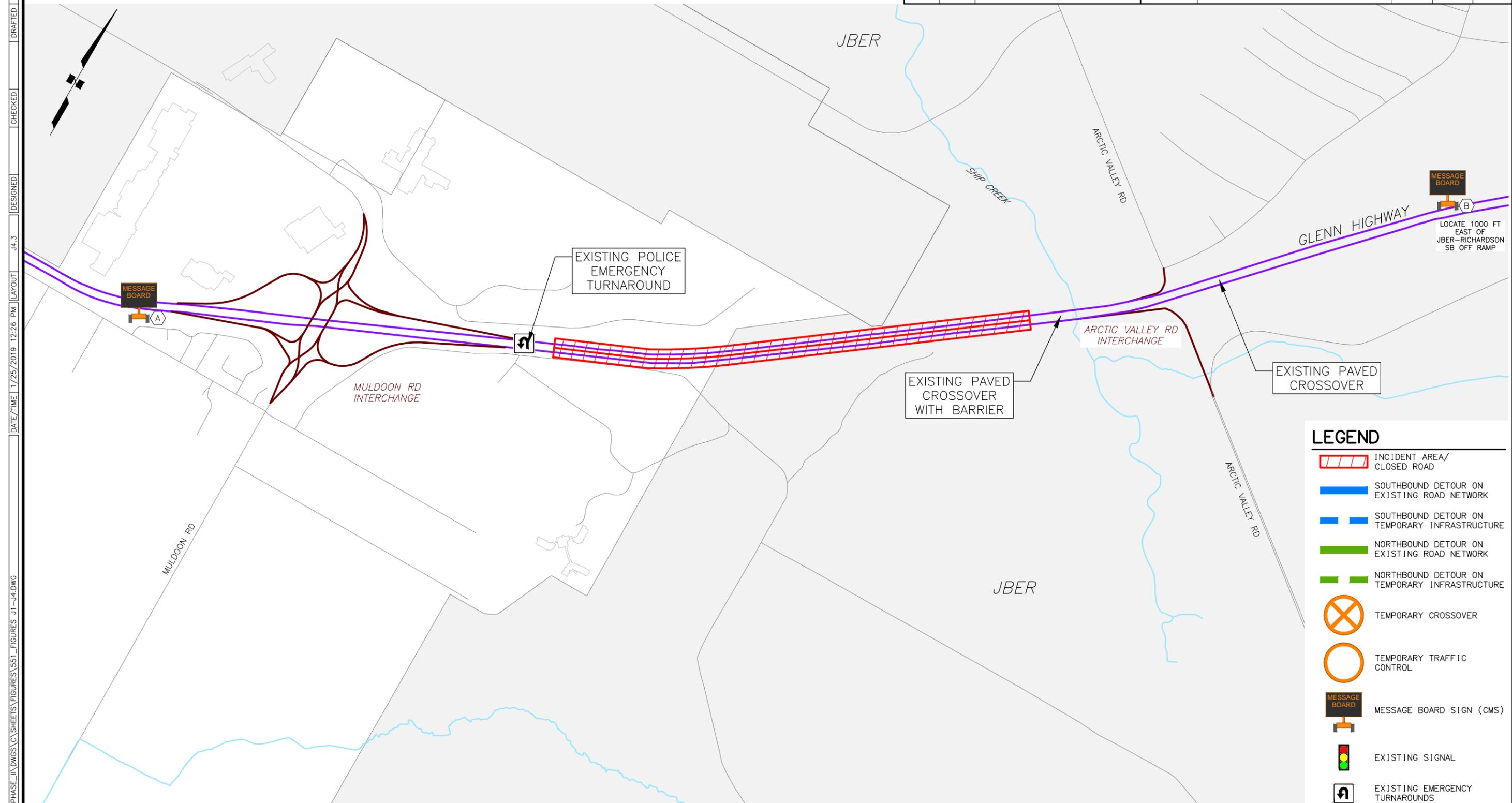
GENERAL NOTES
 1. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

PLANS DEVELOPED BY:
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STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
**GLENN HIGHWAY
 MULDOON RD TO ARCTIC
 VALLEY RD INTERCHANGE
 SOUTHBOUND CLOSURE**

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_FIGURES_J1-J4.DWG
 DATE/TIME 7/25/2019 12:26 PM LAYOUT J4.2
 DESIGNED CHECKED DRAFTED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J4.3	J17-G



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

CROSSOVER CMS MESSAGES

(A) GLENN HWY CLOSED AT MULDOON
 (B) GLENN HWY CLOSED AT JBER-RICHARDSON

DETOUR NOTES

1. NO ROADWAY DETOUR AVAILABLE FOR FULL ROAD CLOSURE.

GENERAL NOTES

1. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

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STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 MULDOON RD TO ARCTIC
 VALLEY RD INTERCHANGE
 FULL CLOSURE**

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_FIGURES_J1-J4.DWG
 DATE/TIME 7/25/2019 12:26 PM LAYOUT J4.3 DESIGNED CHECKED DRAFTED

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 DATE/TIME 1/25/2019 1:15 PM LAYOUT J4-Q DESIGNED CHECKED DRAFTED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J4-Q	J17-Q

TRAFFIC CONTROL DEVICE SUMMARY: EXISTING ROAD NETWORK DETOUR

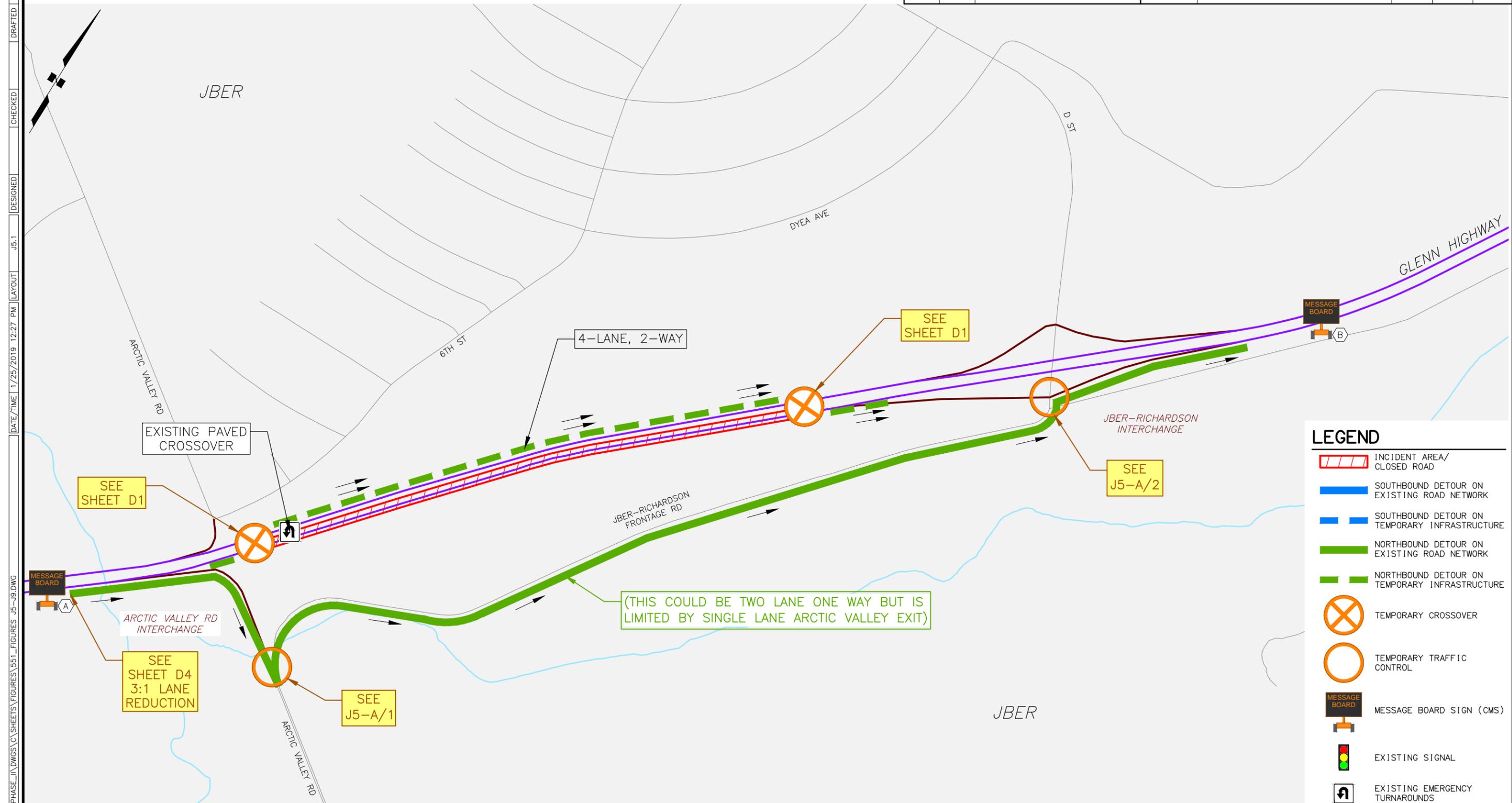
DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J4.1	J4.2	J4.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1			
ROAD WORK 1 MILE	CW20-1			
RIGHT LANE CLOSED 1/2 MILE	CW20-5			
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A			
RIGHT LANE CLOSED AHEAD	CW20-5R			
LEFT LANE CLOSED AHEAD	CW20-5L			
RIGHT LANE REDUCTION SYMBOL	CW4-2R			
LEFT LANE REDUCTION SYMBOL	CW4-2L			
ROAD CLOSED	R11-2			
LANE CLOSED	R11-102			
DETOUR (RT)	M4-10R			
DETOUR (LT)	M4-10L			
DETOUR MARKER (RT)	M4-9R			
DETOUR MARKER (LT)	M4-9L			
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2			
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1			
YIELD	R1-2			
STOP AHEAD	CW3-1			
YIELD AHEAD	CW3-2			
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L			
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R			
REVERSE CURVE LEFT	CW1-4L			
DO NOT PASS	R4-1			
TWO WAY TRAFFIC	CW6-3			
45 MPH ADVISORY	CW13-1			
35 MPH ADVISORY	CW13-1			
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-			
DRUMS/TYPE II BARRICADES	-			
CHANNELIZING DEVICES	-			
ARROW BOARD	-			
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-			
CHANGEABLE MESSAGE BOARD	-	2	2	2
SURFACE MOUNT FLEXIBLE DELINEATORS	-			

TRAFFIC CONTROL DEVICE SUMMARY: CROSSOVER DETOUR

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J4.1	J4.2	J4.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1	2	2	
ROAD WORK 1 MILE	CW20-1	2	2	
RIGHT LANE CLOSED 1/2 MILE	CW20-5	4	4	
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A			
RIGHT LANE CLOSED AHEAD	CW20-5R			
LEFT LANE CLOSED AHEAD	CW20-5L			
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4	4	
LEFT LANE REDUCTION SYMBOL	CW4-2L			
ROAD CLOSED	R11-2	2	2	
LANE CLOSED	R11-102	8	8	
DETOUR (RT)	M4-10R			
DETOUR (LT)	M4-10L			
DETOUR MARKER (RT)	M4-9R			
DETOUR MARKER (LT)	M4-9L			
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2	2	2	
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1			
YIELD	R1-2			
STOP AHEAD	CW3-1			
YIELD AHEAD	CW3-2			
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L	2	2	
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R	2	2	
REVERSE CURVE LEFT	CW1-4L	2	2	
DO NOT PASS	R4-1			
TWO WAY TRAFFIC	CW6-3			
45 MPH ADVISORY	CW13-1	4	4	
35 MPH ADVISORY	CW13-1			
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-	14	14	
DRUMS/TYPE II BARRICADES	-	120	120	
CHANNELIZING DEVICES	-	200	200	
ARROW BOARD	-	2	2	
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-	3	3	
CHANGEABLE MESSAGE BOARD	-	2	2	
SURFACE MOUNT FLEXIBLE DELINEATORS	-	200	200	

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY MULDOON TO ARCTIC VALLEY SEGMENT QUANTITIES
--	--

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J5.1	J17-G



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

- DETOUR CMS MESSAGES**
- (A) GLENN HWY CLOSED AT ARCTIC VALLEY/FOLLOW SIGNED DETOUR ROUTE
 - (B) NOT USED
- CROSSOVER CMS MESSAGES**
- (A) GLENN HWY REDUCED TO TWO LANES/FOLLOW DETOUR
 - (B) LEFT LANE CLOSED AHEAD/GLENN HWY REDUCED TO TWO LANES

DETOUR NOTES

- COORDINATE WITH JBER FOR POSSIBLE REROUTING OF ANCHORAGE BOUND JBER EXITING TRAFFIC TO ARCTIC VALLEY ROAD.

GENERAL NOTES

- LOCATE CMS SIGNS ON GLENN HWY 1000FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

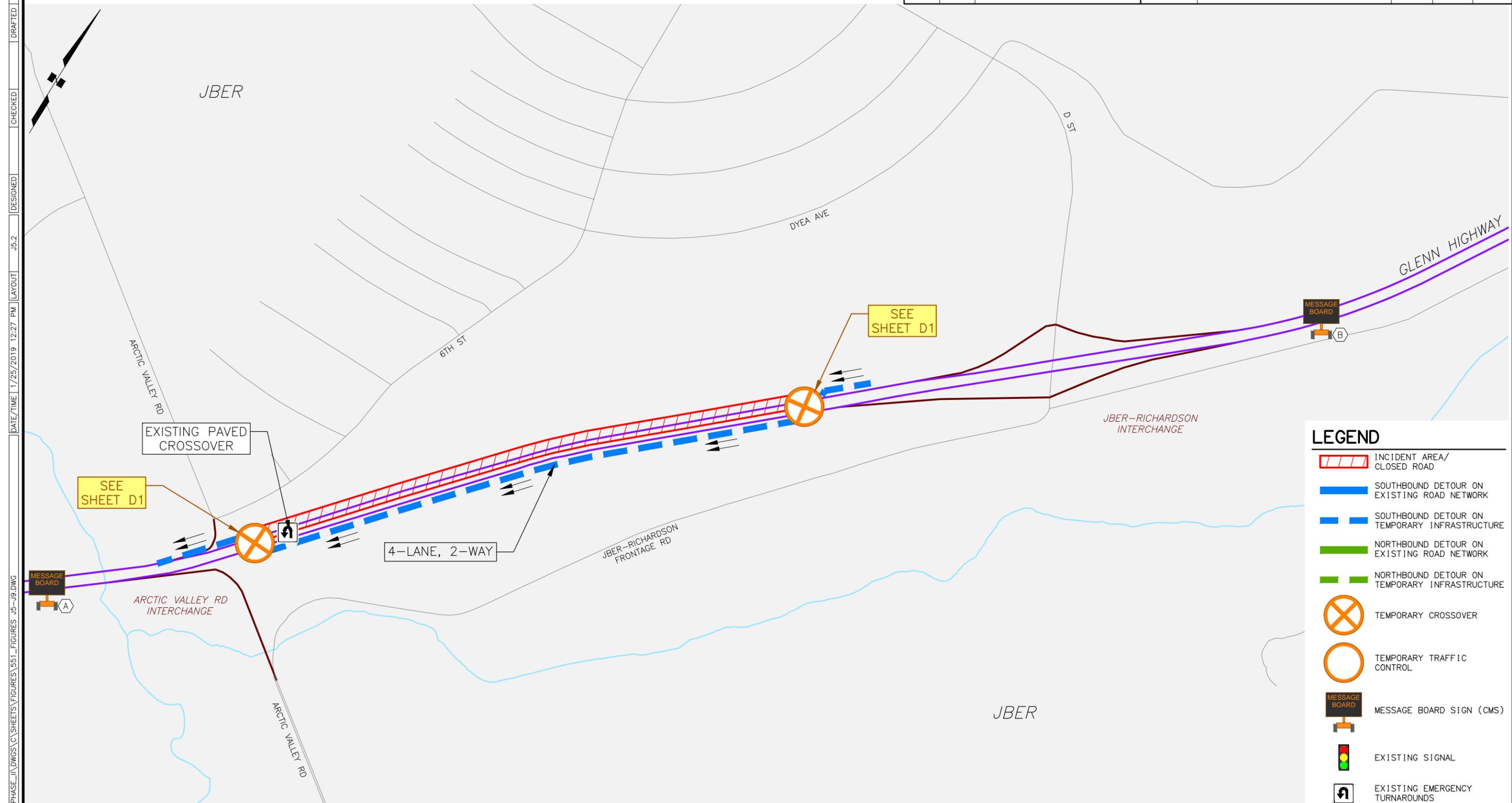
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STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 ARCTIC VALLEY TO
 JBER-RICHARDSON
 INTERCHANGE NORTHBOUND
 CLOSURE**

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\CSHEETS\FIGURES\551_FIGURES_J5-J9.DWG
 DATE/TIME 1/25/2019 12:27 PM LAYOUT J5.1 DESIGNED CHECKED DRAFTED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J5.2	J17-G



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

CROSSOVER CMS MESSAGES

(A) LEFT LANE CLOSED AHEAD/GLENN HWY REDUCED TO TWO LANES

(B) GLENN HWY REDUCED TO TWO LANES/FOLLOW DETOUR

DETOUR NOTES

- NO ROADWAY DETOUR AVAILABLE FOR SOUTHBOUND ROAD CLOSURE. CONSIDER ALTERNATE ROUTES.
- COORDINATE WITH JBER FOR POSSIBLE REROUTING OF ANCHORAGE BOUND JBER EXITING TRAFFIC TO ARCTIC VALLEY ROAD.

GENERAL NOTES

- LOCATE CMS SIGNS ON GLENN HWY 1000FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

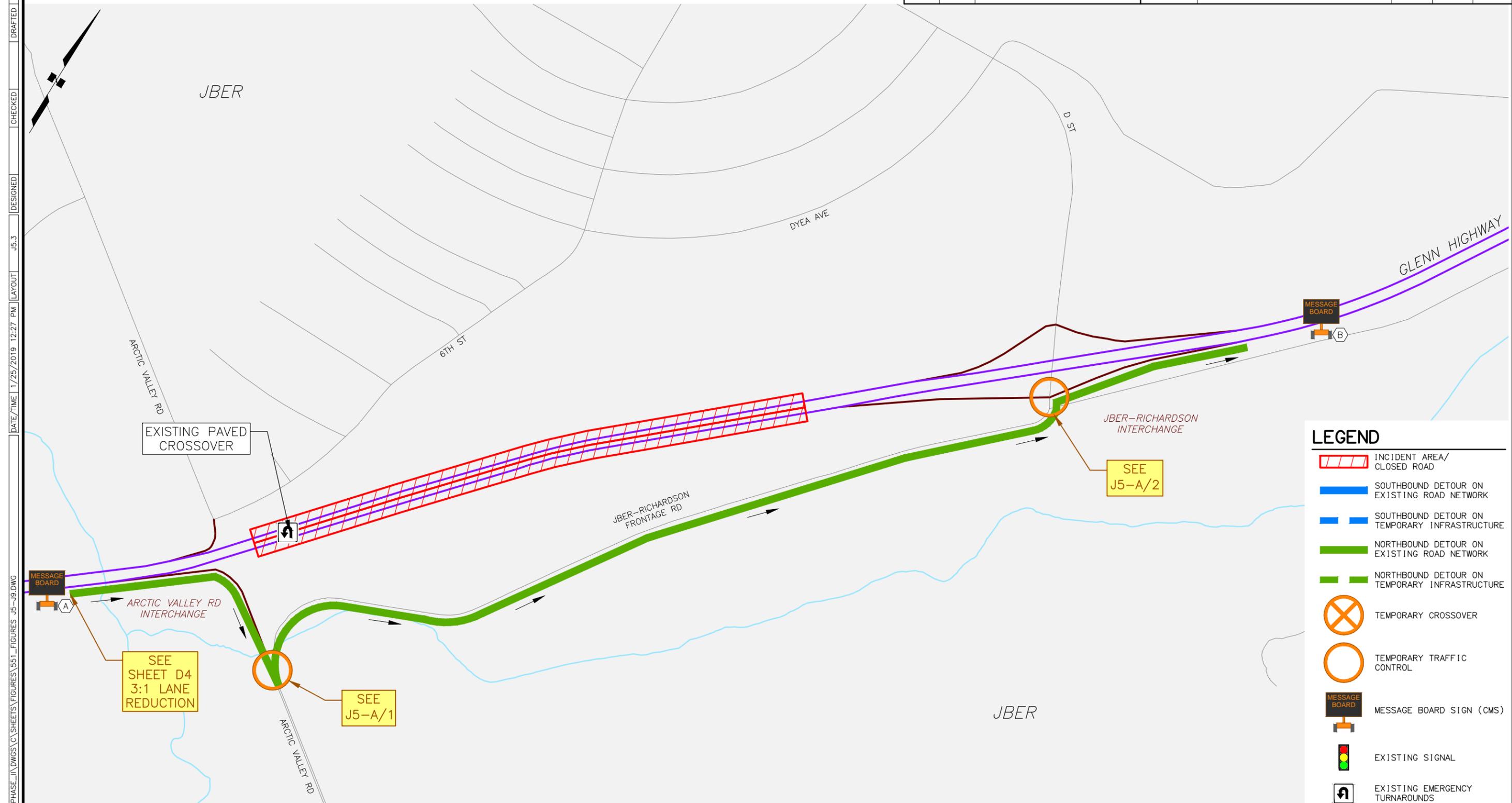
PLANS DEVELOPED BY:
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STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 ARCTIC VALLEY TO
 JBER-RICHARDSON
 INTERCHANGE SOUTHBOUND
 CLOSURE**

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\CSHEETS\FIGURES\551_FIGURES_J5-J9.DWG
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J5.3	J17-G



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DATE/TIME 1/25/2019 12:27 PM LAYOUT J5.3 DESIGNED CHECKED DRAFTED

CROSSOVER CMS MESSAGES

(A) GLENN HWY CLOSED AT ARCTIC VALLEY/FOLLOW SIGNED DETOUR ROUTE

(B) GLENN HWY CLOSED AT JBER-RICHARDSON

DETOUR NOTES

- NO ROADWAY DETOUR AVAILABLE FOR SOUTHBOUND ROAD CLOSURE. CONSIDER ALTERNATE ROUTES.
- COORDINATE WITH JBER FOR POSSIBLE REROUTING OF ANCHORAGE BOUND JBER EXITING TRAFFIC TO ARCTIC VALLEY ROAD.

GENERAL NOTES

- LOCATE CMS SIGNS ON GLENN HWY 1000FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

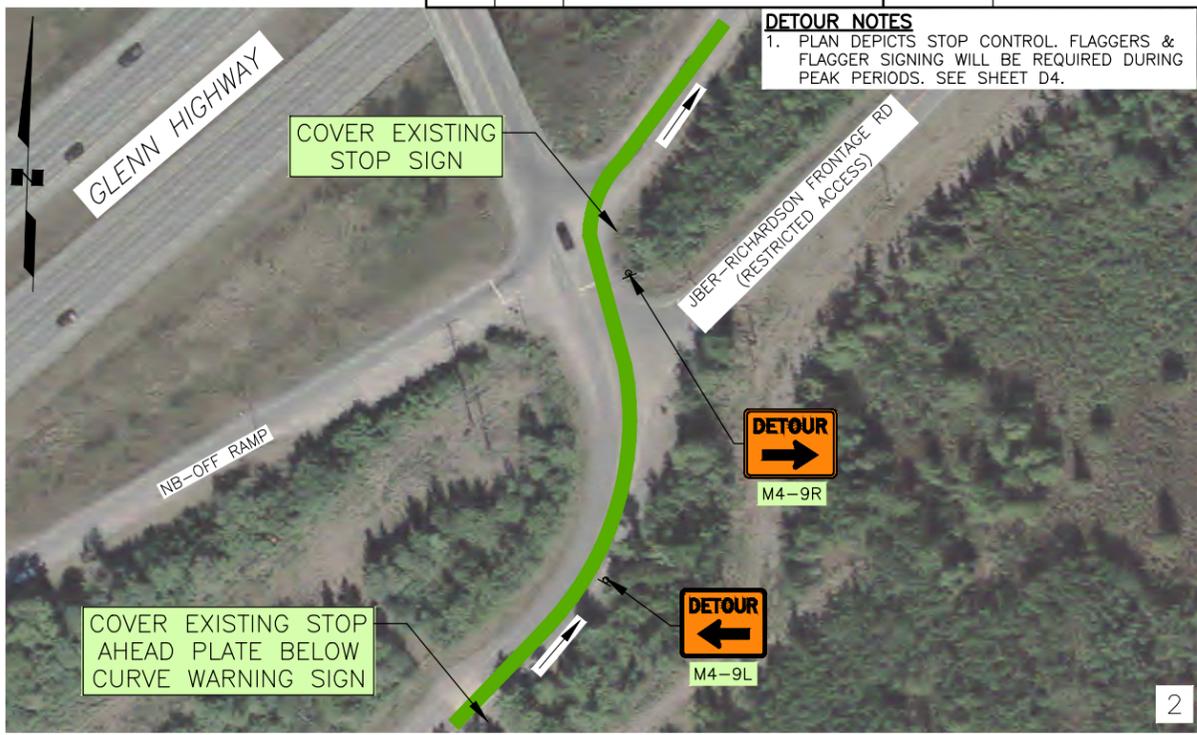
PLANS DEVELOPED BY:
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 (907) 346-2373
 CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 ARCTIC VALLEY TO
 JBER-RICHARDSON
 INTERCHANGE FULL CLOSURE**

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	J5-AJ17-G	

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 DATE/TIME 1/25/2019 1:09 PM
 LAYOUT J5-A
 DESIGNED
 CHECKED
 DRAFTED



DETOUR NOTES
 1. PLAN DEPICTS STOP CONTROL, FLAGGERS & FLAGGER SIGNING WILL BE REQUIRED DURING PEAK PERIODS. SEE SHEET D4.

LEGEND

	INCIDENT AREA/ CLOSED ROAD
	SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
	NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
	TEMPORARY STOP SIGN
	TEMPORARY YIELD SIGN
	TEMPORARY TRAFFIC CONTROL SIGNS
	MESSAGE BOARD SIGN (CMS)
	EXISTING SIGNAL
	EXISTING SIGN TO BE COVERED

- GENERAL NOTES**
1. ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 2. HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY & REGULATORY SIGNING.
 3. PLACE W3-2 SIGNS 500 FT IN ADVANCE OF R1-2 SIGNS.
 4. PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 ARCTIC VALLEY RD TO
 JBER-RICHARDSON INTERCHANGE
 CLOSURE DETAILS**

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 3909 ARCTIC BLVD, SUITE 400
 ANCHORAGE, ALASKA 99503
 (907) 346-2373
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FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_QUANTITIES_J1-J10.DWG
 DATE/TIME 1/25/2019 1:15 PM LAYOUT J5-Q DESIGNED CHECKED DRAFTED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J5-Q	J17-Q

TRAFFIC CONTROL DEVICE SUMMARY: EXISTING ROAD NETWORK DETOUR

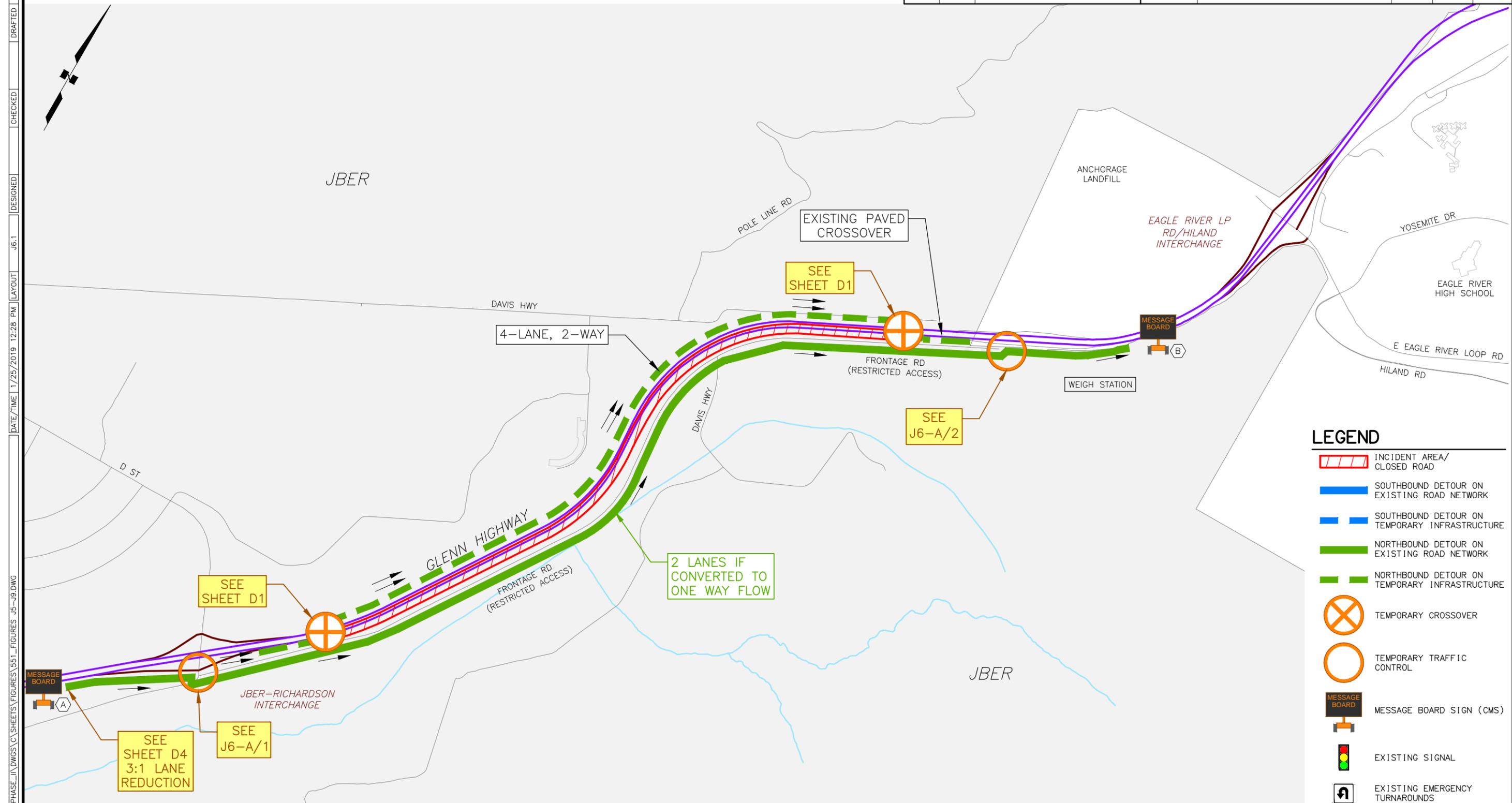
DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J5.1	J5.2	J5.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1			
ROAD WORK 1 MILE	CW20-1	2		4
RIGHT LANE CLOSED 1/2 MILE	CW20-5			
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A	2		4
RIGHT LANE CLOSED AHEAD	CW20-5R			
LEFT LANE CLOSED AHEAD	CW20-5L			
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4		8
LEFT LANE REDUCTION SYMBOL	CW4-2L			
ROAD CLOSED	R11-2			
LANE CLOSED	R11-102	8		16
DETOUR (RT)	M4-10R			
DETOUR (LT)	M4-10L			
DETOUR MARKER (RT)	M4-9R	1		1
DETOUR MARKER (LT)	M4-9L	2		2
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2			
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1			
YIELD	R1-2	1		1
STOP AHEAD	CW3-1			
YIELD AHEAD	CW3-2	1		1
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L			
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R			
REVERSE CURVE LEFT	CW1-4L			
DO NOT PASS	R4-1			
TWO WAY TRAFFIC	CW6-3			
45 MPH ADVISORY	CW13-1			
35 MPH ADVISORY	CW13-1			
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-	8		16
DRUMS/TYPE II BARRICADES	-	80		160
CHANNELIZING DEVICES	-	120		240
ARROW BOARD	-	2		4
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-	2		4
CHANGEABLE MESSAGE BOARD	-	2	2	2
SURFACE MOUNT FLEXIBLE DELINEATORS	-			

TRAFFIC CONTROL DEVICE SUMMARY: CROSSOVER DETOUR

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J5.1	J5.2	J5.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1	2	2	
ROAD WORK 1 MILE	CW20-1	2	2	
RIGHT LANE CLOSED 1/2 MILE	CW20-5	4	4	
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A			
RIGHT LANE CLOSED AHEAD	CW20-5R			
LEFT LANE CLOSED AHEAD	CW20-5L			
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4	4	
LEFT LANE REDUCTION SYMBOL	CW4-2L			
ROAD CLOSED	R11-2	2	2	
LANE CLOSED	R11-102	8	8	
DETOUR (RT)	M4-10R			
DETOUR (LT)	M4-10L			
DETOUR MARKER (RT)	M4-9R			
DETOUR MARKER (LT)	M4-9L			
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2	2	2	
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1			
YIELD	R1-2			
STOP AHEAD	CW3-1			
YIELD AHEAD	CW3-2			
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L	2	2	
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R	2	2	
REVERSE CURVE LEFT	CW1-4L	2	2	
DO NOT PASS	R4-1			
TWO WAY TRAFFIC	CW6-3			
45 MPH ADVISORY	CW13-1	4	4	
35 MPH ADVISORY	CW13-1			
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-	14	14	
DRUMS/TYPE II BARRICADES	-	120	120	
CHANNELIZING DEVICES	-	200	200	
ARROW BOARD	-	2	2	
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-	3	3	
CHANGEABLE MESSAGE BOARD	-	2	2	
SURFACE MOUNT FLEXIBLE DELINEATORS	-	200	200	

<p>PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102</p>	<p>STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES</p> <p>GLENN HIGHWAY ARCTIC VALLEY TO JBER-RICHARDSON SEGMENT QUANTITIES</p>
---	--

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J6.1	J17-G



- DETOUR CMS MESSAGES**
- (A) GLENN HWY CLOSED AT JBER-RICHARDSON/FOLLOW SIGNED DETOUR ROUTE
 - (B) NOT USED
- CROSSOVER CMS MESSAGES**
- (A) GLENN HWY REDUCED TO TWO LANES/FOLLOW DETOUR
 - (B) LEFT LANE CLOSED AHEAD/GLENN HWY REDUCED TO TWO LANES

DETOUR NOTES

- DETOUR REQUIRES JBER ACCESS FOR USE OF FRONTAGE RD BETWEEN JBER-RICHARDSON INTERCHANGE AND WEIGH STATION.

GENERAL NOTES

- LOCATE CMS SIGNS ON GLENN HWY 1000FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

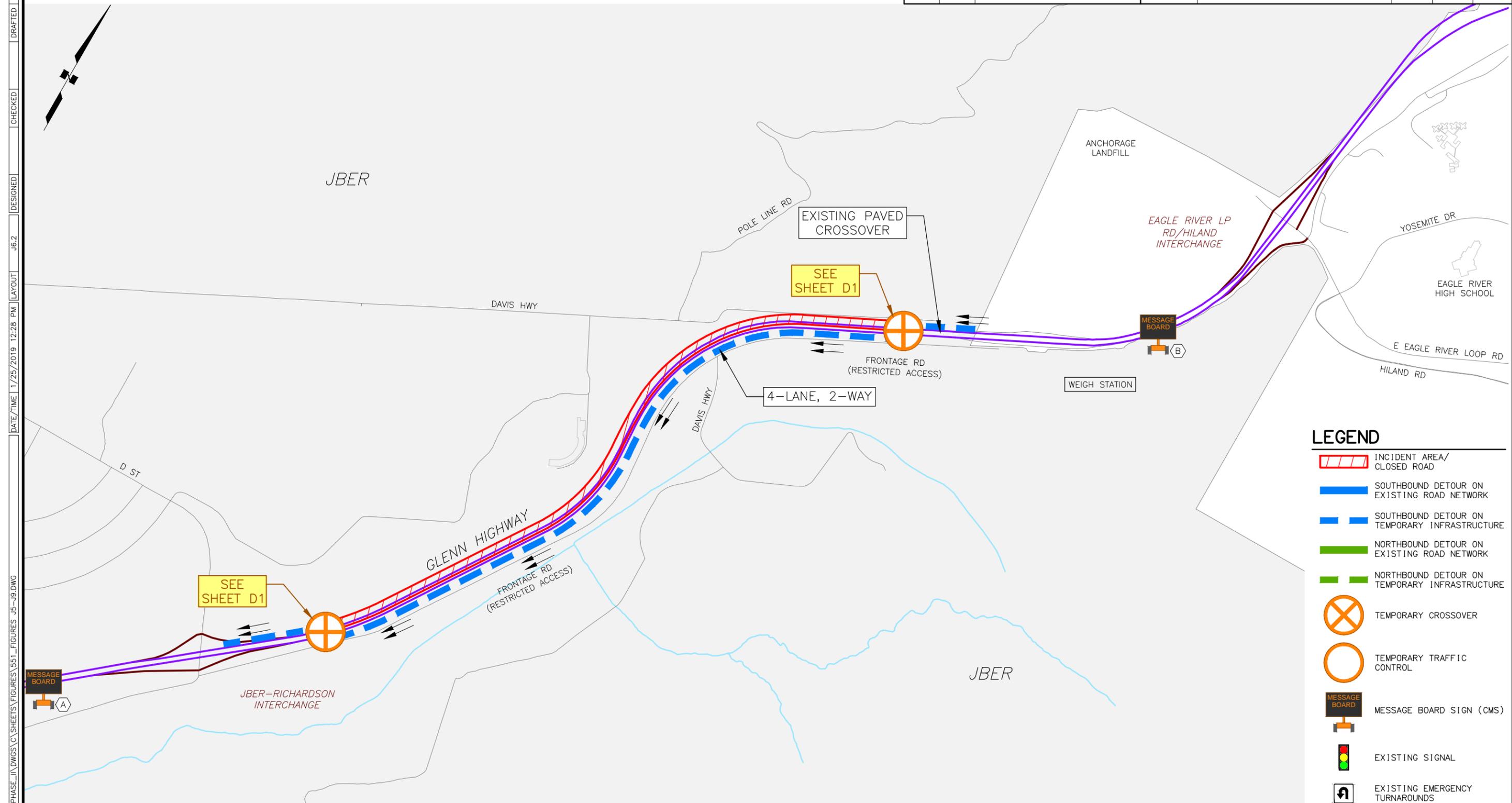
PLANS DEVELOPED BY:
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 3909 ARCTIC BLVD, SUITE 400
 ANCHORAGE, ALASKA 99503
 (907) 346-2373
 CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 JBER-RICHARDSON
 INTERCHANGE TO WEIGH
 STATION NORTHBOUND
 CLOSURE**

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J6.2	J17-G



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 DESIGNED
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CROSSOVER CMS MESSAGES

(A) LEFT LANE CLOSED AHEAD/GLENN HWY REDUCED TO TWO LANES
 (B) GLENN HWY REDUCED TO TWO LANES/FOLLOW DETOUR

DETOUR NOTES

1. NO ROADWAY DETOUR AVAILABLE FOR SOUTHBOUND ROAD CLOSURE. CONSIDER ALTERNATE ROUTES.

GENERAL NOTES

1. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

LEGEND

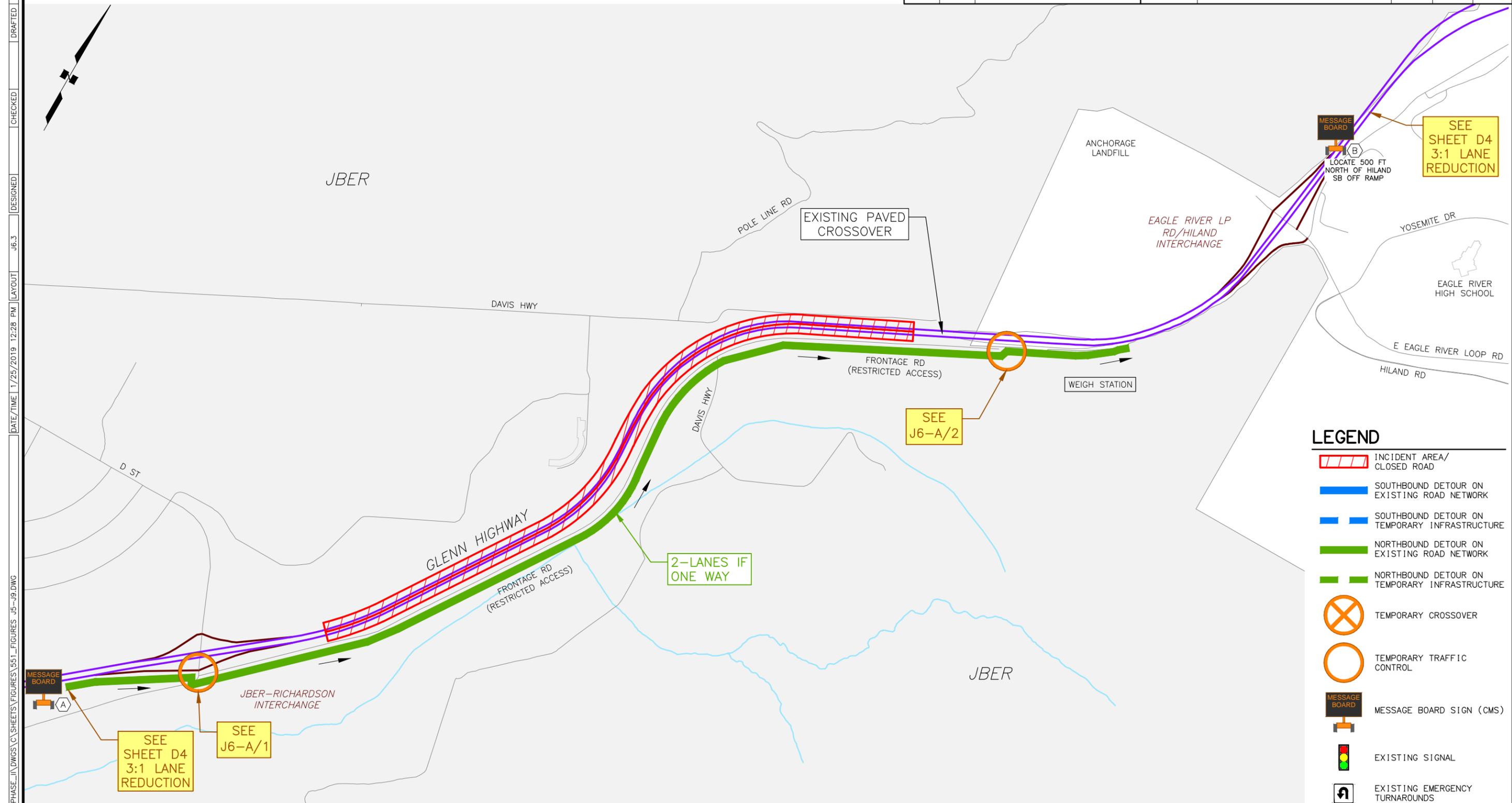
- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY
JBER-RICHARDSON
INTERCHANGE TO WEIGH
STATION SOUTHBOUND
CLOSURE**

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
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CERT. OF AUTH. NO. AECL 1102

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J6.3	J17-G



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

- DETOUR CMS MESSAGES**
- (A) GLENN HWY CLOSED AT JBER-RICHARDSON/FOLLOW SIGNED DETOUR ROUTE
 - (B) NOT USED
- CROSSOVER CMS MESSAGES**
- (A) GLENN HWY CLOSED AT JBER-RICHARDSON/FOLLOW SIGNED DETOUR ROUTE
 - (B) GLENN HWY CLOSED AT HILAND

- DETOUR NOTES**
- NO ROADWAY DETOUR AVAILABLE FOR SOUTHBOUND ROAD CLOSURE. CONSIDER ALTERNATE ROUTES.
 - NORTHBOUND DETOUR REQUIRES JBER ACCESS FOR USE OF FRONTAGE RD BETWEEN JBER-RICHARDSON INTERCHANGE AND WEIGH STATION.

- GENERAL NOTES**
- LOCATE CMS SIGNS ON GLENN HWY 1000FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

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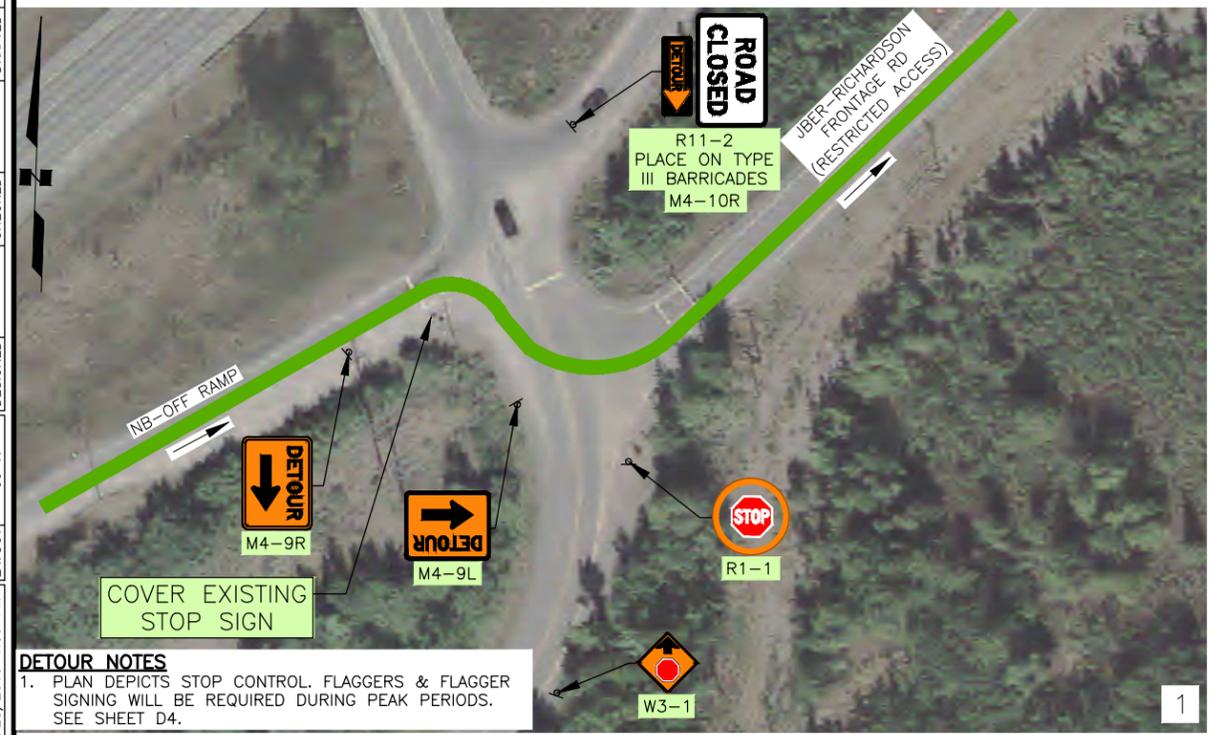
STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 JBER-RICHARDSON
 INTERCHANGE TO WEIGH STATION
 FULL CLOSURE**

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\00551_GLENN_HWY_PHASE_II\FIGURES\J5-J9.DWG
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J6-AJ17-G	

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DETOUR NOTES
 1. PLAN DEPICTS STOP CONTROL, FLAGGERS & FLAGGER SIGNING WILL BE REQUIRED DURING PEAK PERIODS. SEE SHEET D4.

1



DETOUR NOTES
 1. UTILIZE EXISTING PAVED CONNECTION BETWEEN FRONTAGE ROAD AND NORTHBOUND WEIGH STATION FOR ACCESS TO GLENN HIGHWAY.
 2. NORTHBOUND WEIGH STATION SCALES WILL HAVE TO BE CLOSED TO ACCOMMODATE DETOUR.

2

LEGEND

	INCIDENT AREA/ CLOSED ROAD
	SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
	NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
	TEMPORARY STOP SIGN
	TEMPORARY YIELD SIGN
	TEMPORARY TRAFFIC CONTROL SIGNS
	MESSAGE BOARD SIGN (CMS)
	EXISTING SIGNAL
	EXISTING SIGN TO BE COVERED

DETOUR NOTES
 1. DETOUR REQUIRES COORDINATION WITH JBER FOR ACCESS.

GENERAL NOTES
 1. ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 2. HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY & REGULATORY SIGNING.
 3. PLACE W3-1 SIGNS 500 FT IN ADVANCE OF R1-1 SIGNS.
 4. PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.

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STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 JBER-RICHARDSON INTERCHANGE
 TO WEIGH STATION
 CLOSURE DETAILS**

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_QUANTITIES_J1-J10.DWG
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J6-Q	J17-Q

TRAFFIC CONTROL DEVICE SUMMARY: EXISTING ROAD NETWORK DETOUR

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J6.1	J6.2	J6.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1			
ROAD WORK 1 MILE	CW20-1	2		4
RIGHT LANE CLOSED 1/2 MILE	CW20-5			
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A	2		4
RIGHT LANE CLOSED AHEAD	CW20-5R			
LEFT LANE CLOSED AHEAD	CW20-5L			
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4		8
LEFT LANE REDUCTION SYMBOL	CW4-2L			
ROAD CLOSED	R11-2	2		2
LANE CLOSED	R11-102	8		16
DETOUR (RT)	M4-10R	1		1
DETOUR (LT)	M4-10L			
DETOUR MARKER (RT)	M4-9R	1		1
DETOUR MARKER (LT)	M4-9L	1		1
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2			
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1	2		2
YIELD	R1-2			
STOP AHEAD	CW3-1	1		1
YIELD AHEAD	CW3-2			
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L			
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R			
REVERSE CURVE LEFT	CW1-4L	1		1
DO NOT PASS	R4-1			
TWO WAY TRAFFIC	CW6-3			
45 MPH ADVISORY	CW13-1			
35 MPH ADVISORY	CW13-1			
25 MPH ADVISORY	CW13-1	1		1
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-	10		18
DRUMS/TYPE II BARRICADES	-	80		160
CHANNELIZING DEVICES	-	120		240
ARROW BOARD	-	2		4
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-	2		4
CHANGEABLE MESSAGE BOARD	-	2	2	2
SURFACE MOUNT FLEXIBLE DELINEATORS	-			

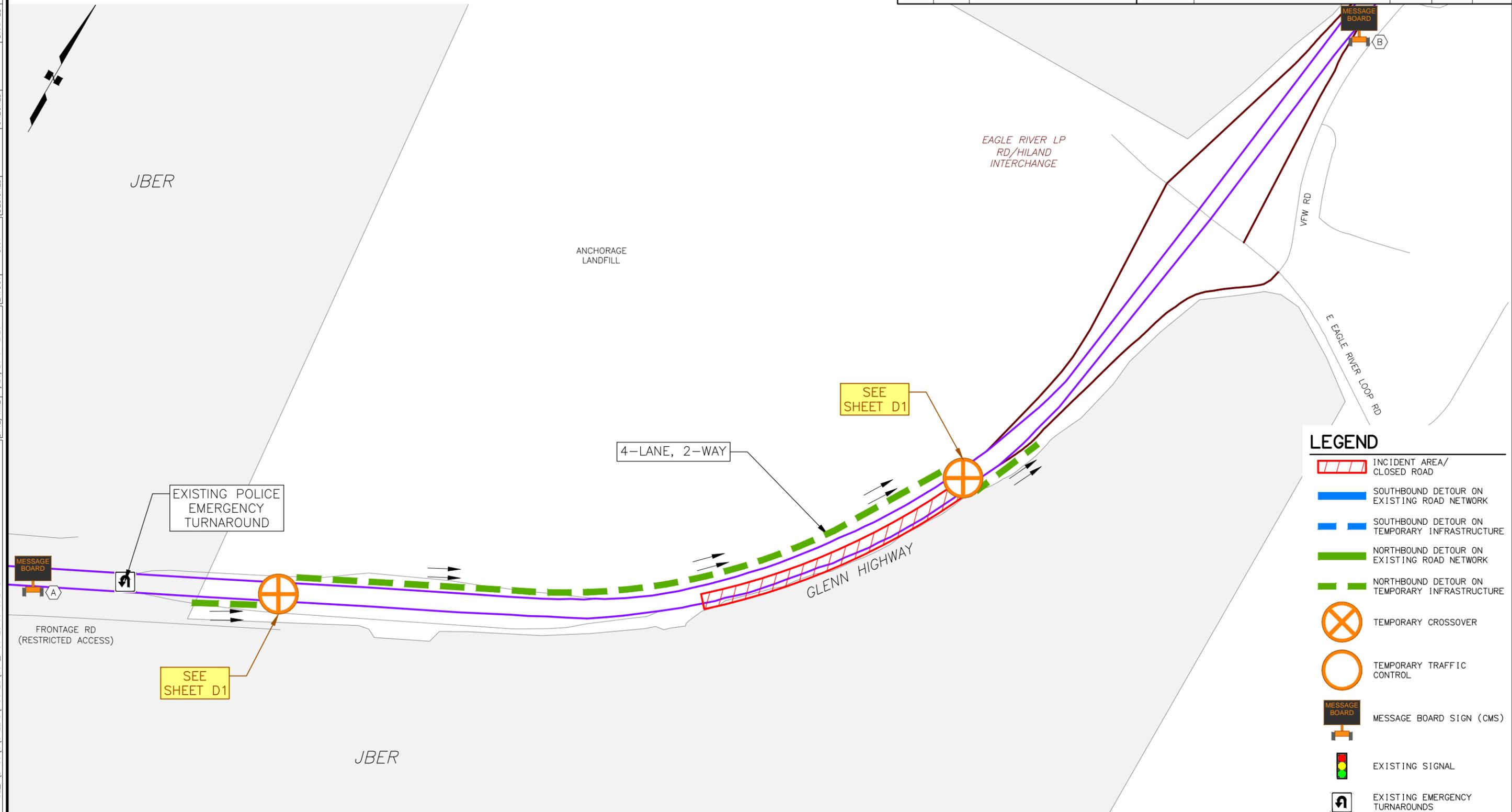
TRAFFIC CONTROL DEVICE SUMMARY: CROSSOVER DETOUR

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J6.1	J6.2	J6.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1	2	2	
ROAD WORK 1 MILE	CW20-1	2	2	
RIGHT LANE CLOSED 1/2 MILE	CW20-5	4	4	
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A			
RIGHT LANE CLOSED AHEAD	CW20-5R			
LEFT LANE CLOSED AHEAD	CW20-5L			
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4	4	
LEFT LANE REDUCTION SYMBOL	CW4-2L			
ROAD CLOSED	R11-2	2	2	
LANE CLOSED	R11-102	8	8	
DETOUR (RT)	M4-10R			
DETOUR (LT)	M4-10L			
DETOUR MARKER (RT)	M4-9R			
DETOUR MARKER (LT)	M4-9L			
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2	2	2	
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1			
YIELD	R1-2			
STOP AHEAD	CW3-1			
YIELD AHEAD	CW3-2			
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L	2	2	
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R	2	2	
REVERSE CURVE LEFT	CW1-4L	2	2	
DO NOT PASS	R4-1			
TWO WAY TRAFFIC	CW6-3			
45 MPH ADVISORY	CW13-1	4	4	
35 MPH ADVISORY	CW13-1			
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-	14	14	
DRUMS/TYPE II BARRICADES	-	120	120	
CHANNELIZING DEVICES	-	200	200	
ARROW BOARD	-	2	2	
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-	3	3	
CHANGEABLE MESSAGE BOARD	-	2	2	
SURFACE MOUNT FLEXIBLE DELINEATORS	-	200	200	

<p>PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102</p>	<p>STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES</p> <p>GLENN HIGHWAY JBER-RICHARDSON TO WEIGH STATION SEGMENT QUAN SEGMENT QUANTITIES</p>
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J7.1	J17-G

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\CSHEETS\FIGURES\551_FIGURES_J5-J9.DWG
 DATE/TIME 1/25/2019 12:29 PM LAYOUT J7.1 DESIGNED CHECKED DRAFTED



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

CROSSOVER CMS MESSAGES

(A) GLENN HWY REDUCED TO TWO LANES/FOLLOW DETOUR
 (B) LEFT LANE CLOSED AHEAD/GLENN HWY REDUCED TO TWO LANES

DETOUR NOTES
 1. ALL DETOURS REQUIRE TEMPORARY INFRASTRUCTURE.

GENERAL NOTES
 1. LOCATE CMS SIGNS ON GLENN HWY 1000FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

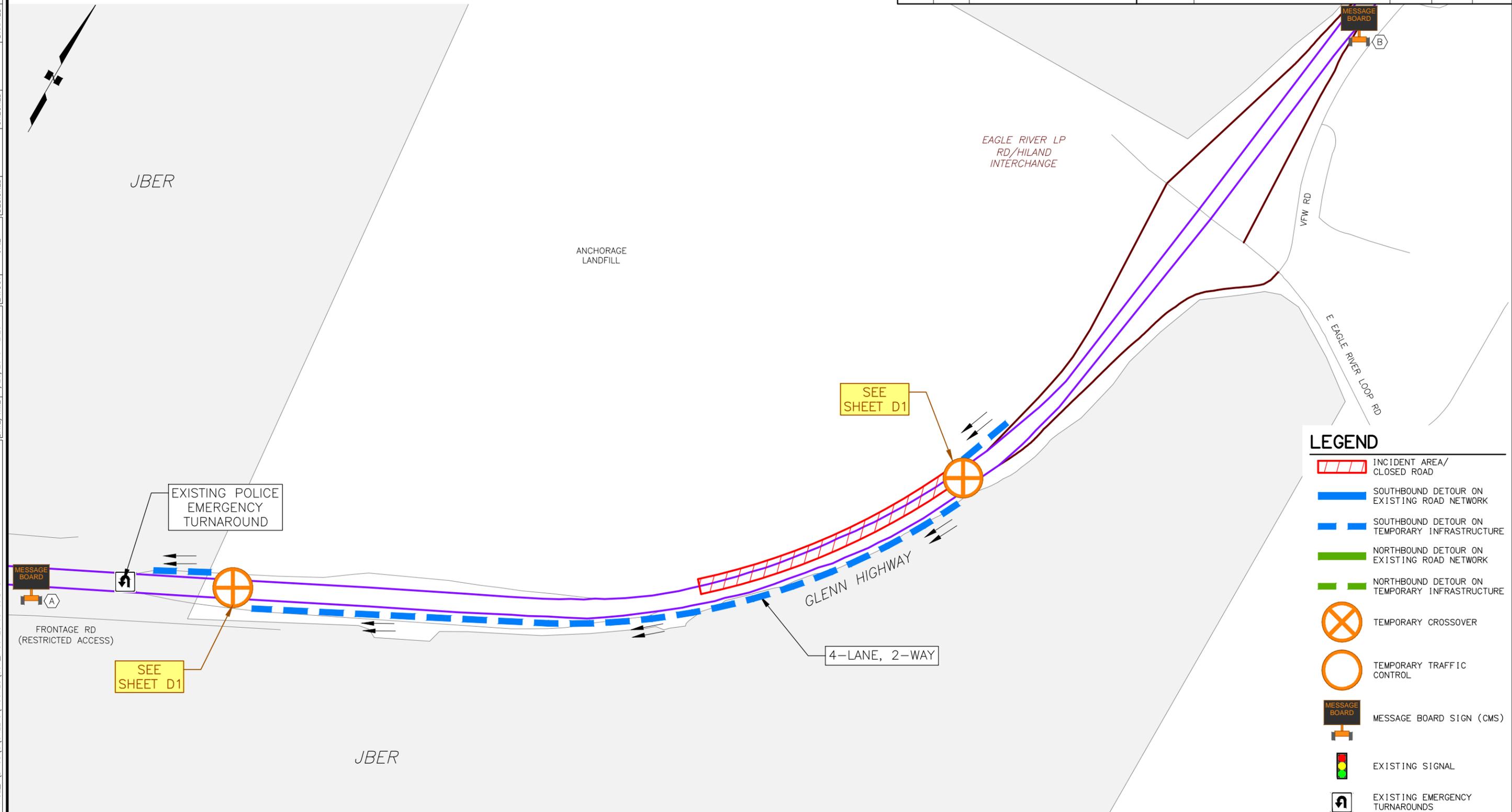
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STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 WEIGH STATION TO EAGLE RIVER
 LP RD/HILAND INTERCHANGE
 NORTHBOUND CLOSURE**

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J7.2	J17-G

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\DWGS\C\SHEETS\FIGURES\551_FIGURES_J5-J9.DWG
 DATE/TIME 1/25/2019 12:29 PM LAYOUT J7.2 DESIGNED CHECKED DRAFTED



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

CROSSOVER CMS MESSAGES

(A) LEFT LANE CLOSED AHEAD/GLENN HWY REDUCED TO TWO LANES
 (B) GLENN HWY REDUCED TO TWO LANES/FOLLOW DETOUR

DETOUR NOTES

1. ALL DETOURS REQUIRE TEMPORARY INFRASTRUCTURE.

GENERAL NOTES

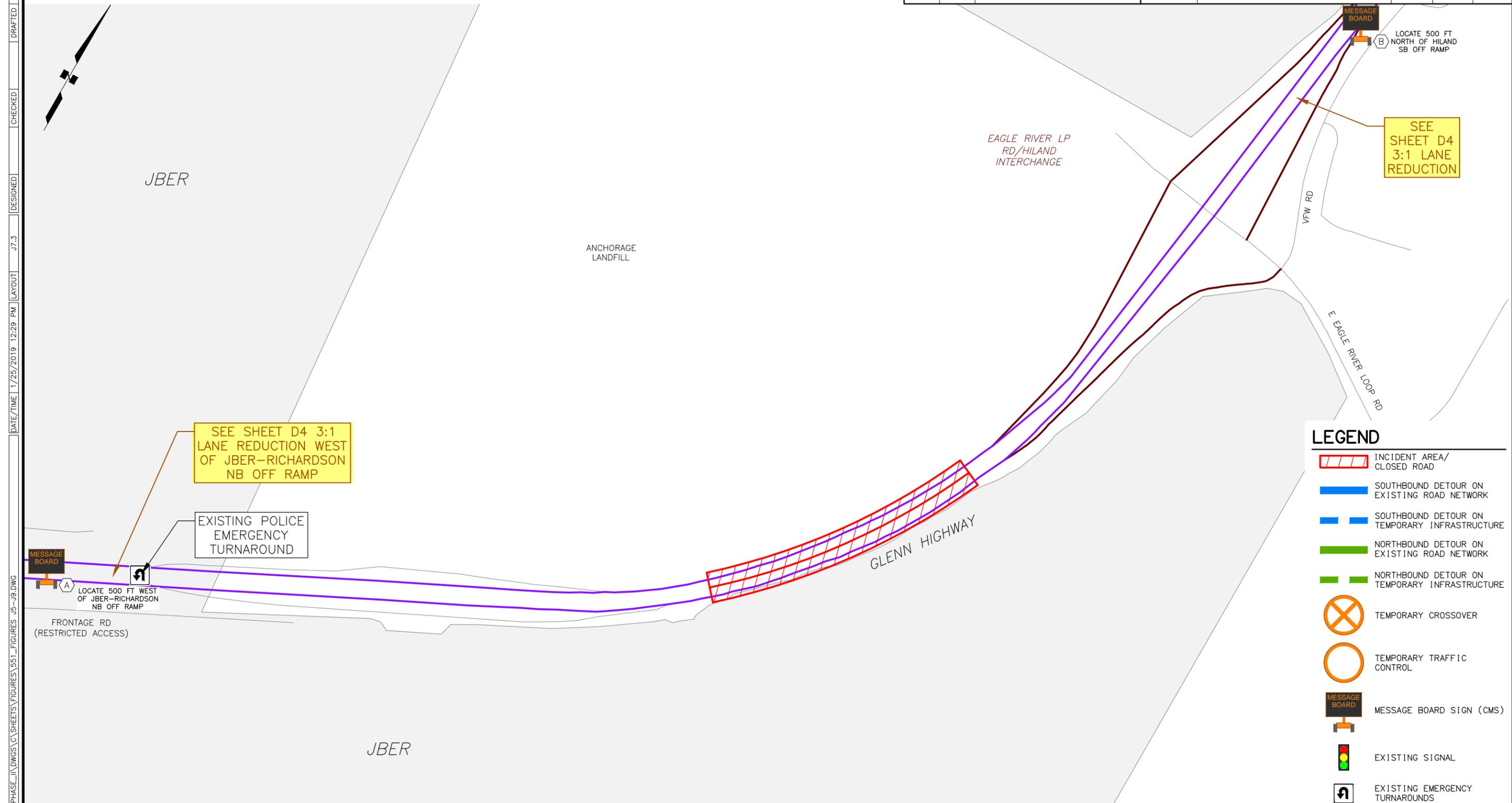
1. LOCATE CMS SIGNS ON GLENN HWY 1000FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

PLANS DEVELOPED BY:
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STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 WEIGH STATION TO EAGLE RIVER
 LP RD/HILAND INTERCHANGE
 SOUTHBOUND CLOSURE**

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J7.3	J17-G



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

DETOUR CMS MESSAGES

(A) GLENN HWY CLOSED AT JBER-RICHARDSON
(B) GLENN HWY CLOSED AT HILAND

DETOUR NOTES

1. NO ROADWAY DETOUR AVAILABLE FOR FULL ROAD CLOSURE. CONSIDER ALTERNATE MODES.

GENERAL NOTES

1. LOCATE CMS SIGNS ON GLENN HWY 1000FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY WEIGH STATION TO EAGLE RIVER LP RD/HILAND INTERCHANGE FULL CLOSURE

PLANS DEVELOPED BY:
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J7-Q	J17-Q

TRAFFIC CONTROL DEVICE SUMMARY: EXISTING ROAD NETWORK DETOUR

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J7.1	J7.2	J7.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1			
ROAD WORK 1 MILE	CW20-1			
RIGHT LANE CLOSED 1/2 MILE	CW20-5			
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A			
RIGHT LANE CLOSED AHEAD	CW20-5R			
LEFT LANE CLOSED AHEAD	CW20-5L			
RIGHT LANE REDUCTION SYMBOL	CW4-2R			
LEFT LANE REDUCTION SYMBOL	CW4-2L			
ROAD CLOSED	R11-2			
LANE CLOSED	R11-102			
DETOUR (RT)	M4-10R			
DETOUR (LT)	M4-10L			
DETOUR MARKER (RT)	M4-9R			
DETOUR MARKER (LT)	M4-9L			
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2			
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1			
YIELD	R1-2			
STOP AHEAD	CW3-1			
YIELD AHEAD	CW3-2			
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L			
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R			
REVERSE CURVE LEFT	CW1-4L			
DO NOT PASS	R4-1			
TWO WAY TRAFFIC	CW6-3			
45 MPH ADVISORY	CW13-1			
35 MPH ADVISORY	CW13-1			
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-			
DRUMS/TYPE II BARRICADES	-			
CHANNELIZING DEVICES	-			
ARROW BOARD	-			
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-			
CHANGEABLE MESSAGE BOARD	-	2	2	2
SURFACE MOUNT FLEXIBLE DELINEATORS	-			

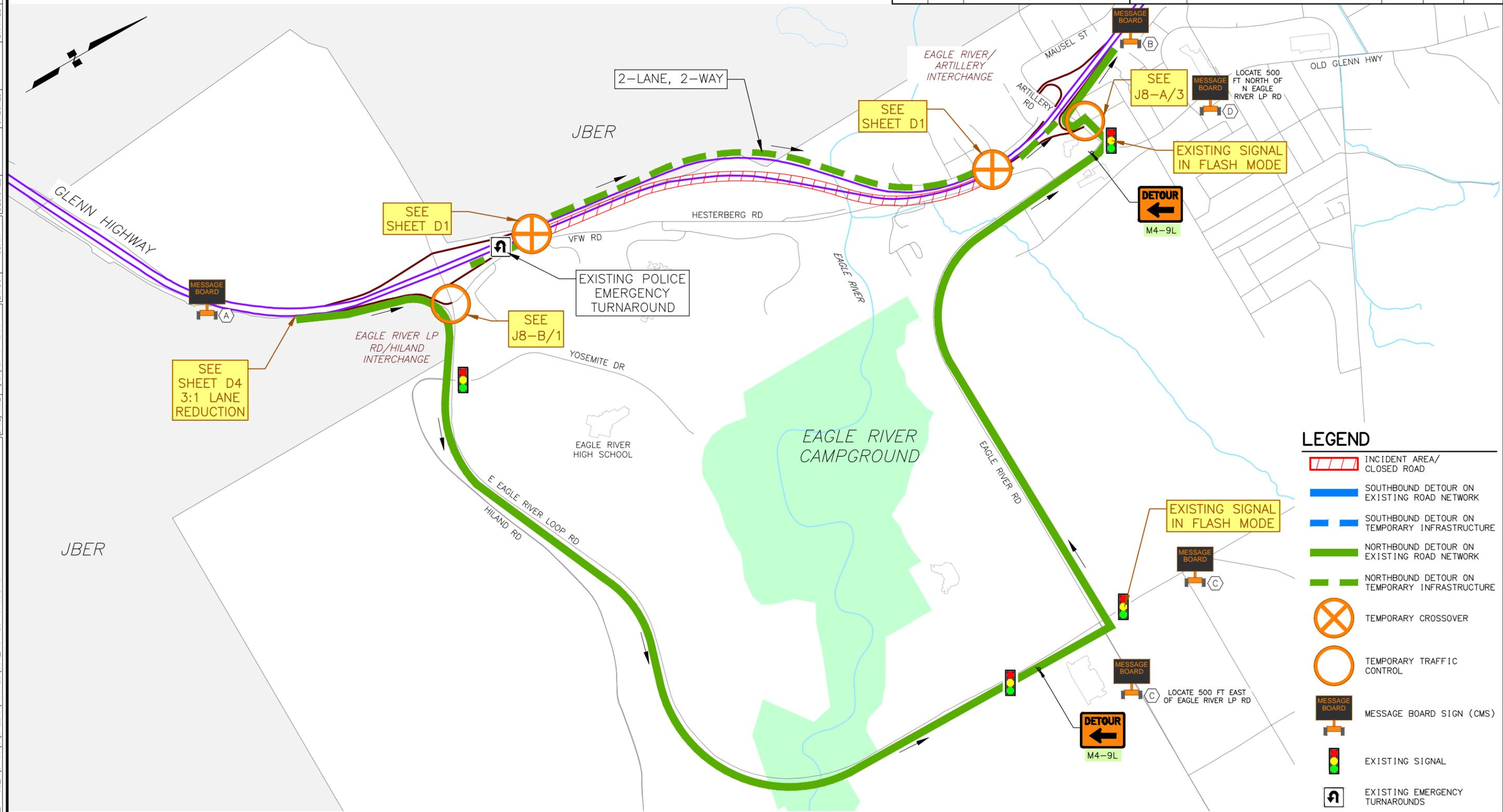
TRAFFIC CONTROL DEVICE SUMMARY: CROSSOVER DETOUR

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J7.1	J7.2	J7.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1	2	2	
ROAD WORK 1 MILE	CW20-1	2	2	
RIGHT LANE CLOSED 1/2 MILE	CW20-5	4	4	
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A			
RIGHT LANE CLOSED AHEAD	CW20-5R			
LEFT LANE CLOSED AHEAD	CW20-5L			
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4	4	
LEFT LANE REDUCTION SYMBOL	CW4-2L			
ROAD CLOSED	R11-2	2	2	
LANE CLOSED	R11-102	8	8	
DETOUR (RT)	M4-10R			
DETOUR (LT)	M4-10L			
DETOUR MARKER (RT)	M4-9R			
DETOUR MARKER (LT)	M4-9L			
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2	2	2	
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1			
YIELD	R1-2			
STOP AHEAD	CW3-1			
YIELD AHEAD	CW3-2			
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L	2	2	
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R	2	2	
REVERSE CURVE LEFT	CW1-4L	2	2	
DO NOT PASS	R4-1			
TWO WAY TRAFFIC	CW6-3			
45 MPH ADVISORY	CW13-1	4	4	
35 MPH ADVISORY	CW13-1			
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-	14	14	
DRUMS/TYPE II BARRICADES	-	120	120	
CHANNELIZING DEVICES	-	200	200	
ARROW BOARD	-	2	2	
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-	3	3	
CHANGEABLE MESSAGE BOARD	-	2	2	
SURFACE MOUNT FLEXIBLE DELINEATORS	-	200	200	

<p>PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102</p>	<p>STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES</p> <p>GLENN HIGHWAY WEIGH STATION TO EAGLE RIVER LP RD - HILAND SEGMENT QUANTITIES</p>
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J8.1AJ17-G	

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\FIGURES\551_FIGURES_J5-J9.DWG
 DATE/TIME 1/25/2019 12:30 PM
 LAYOUT J8.1A
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LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

- #### DETOUR CMS MESSAGES
- (A) GLENN HWY CLOSED AT HILAND/FOLLOW SIGNED DETOUR ROUTE
 - (B) NOT USED
 - (C) CONGESTION AT OLD GLENN/FOLLOW EAGLE RIVER LP TO GLENN HWY
 - (D) CONGESTION AT ARTILLERY/FOLLOW N EAGLE RIVER ACCESS TO GLENN HWY

- #### CROSSOVER CMS MESSAGES
- (A) GLENN HWY REDUCED TO TWO LANES/FOLLOW DETOUR
 - (B) LEFT LANE CLOSED AHEAD/GLENN HWY REDUCED TO TWO LANES
 - (C) NOT USED
 - (D) NOT USED

- #### DETOUR NOTES
- DURING PEAK PERIODS, TRAFFIC SIGNALS DESIGNATED TO BE PLACED IN "FLASH MODE" WILL REQUIRE FLAGGERS & FLAGGER SIGNING SEE SHEET D4.

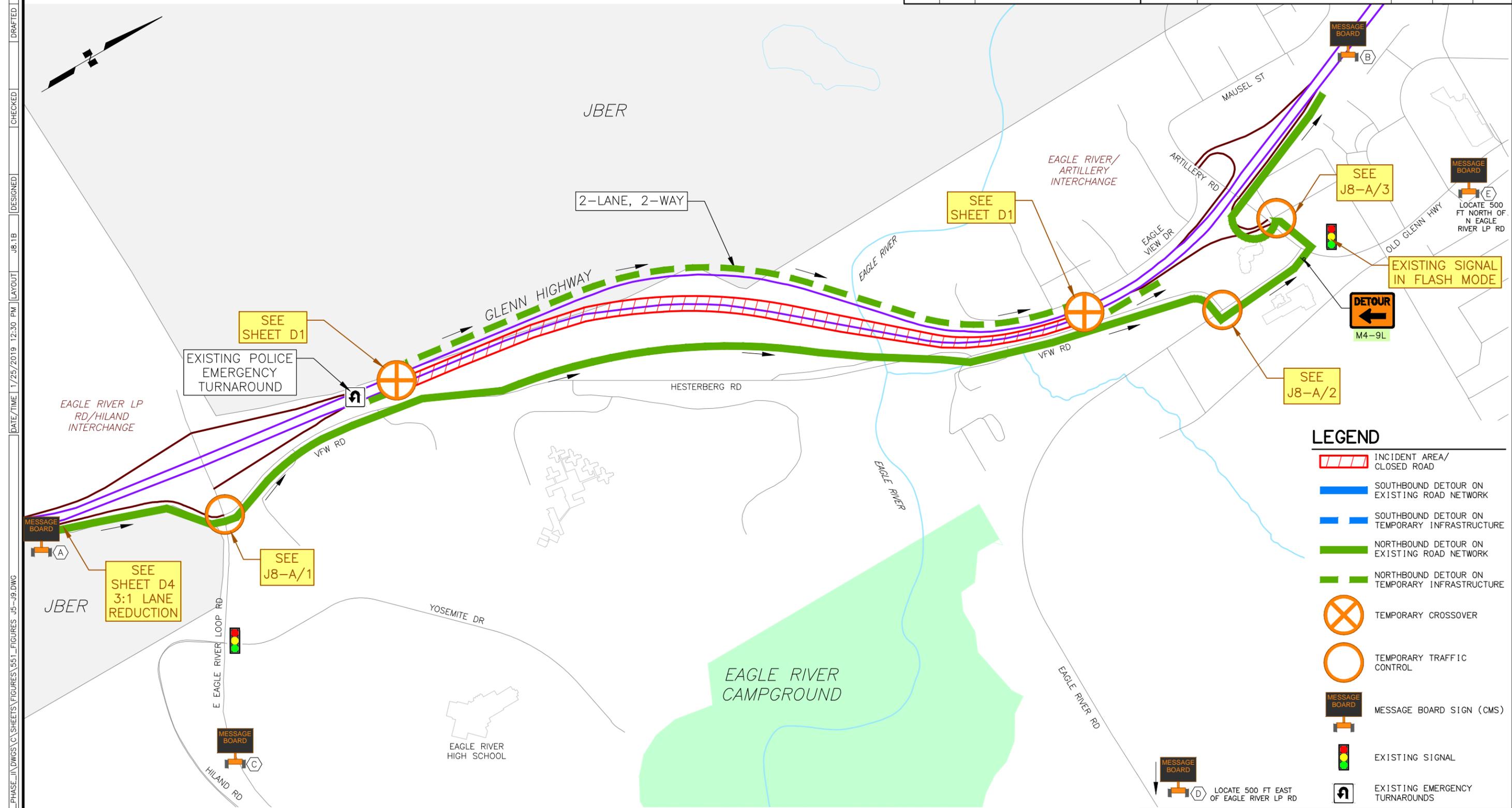
- #### GENERAL NOTES
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
 - LOCATE CMS SIGNS ON GLENN HWY 1000FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

PLANS DEVELOPED BY:
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 CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

GLENN HIGHWAY EAGLE RIVER LP RD/HILAND TO EAGLE RIVER/ARTILLERY INTERCHANGE NORTHBOUND CLOSURE

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J8.1BJ17-G	



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

- #### DETOUR CMS MESSAGES
- (A) GLENN HWY CLOSED AT HILAND/FOLLOW SIGNED DETOUR ROUTE
 - (B) NOT USED
 - (C) NB GLENN HWY CLOSED AT HILAND/FOLLOW SIGNED DETOUR ROUTE
 - (D) CONGESTION AT OLD GLENN/FOLLOW EAGLE RIVER LP TO GLENN HWY
 - (E) CONGESTION AT ARTILLERY/FOLLOW N EAGLE RIVER ACCESS TO GLENN HWY

- #### CROSSOVER CMS MESSAGES
- (A) GLENN HWY REDUCED TO TWO LANES/FOLLOW DETOUR
 - (B) LEFT LANE CLOSED AHEAD/GLENN HWY REDUCED TO TWO LANES
 - (C) NOT USED
 - (D) NOT USED
 - (E) NOT USED

DETOUR NOTES

1. DURING PEAK PERIODS, TRAFFIC SIGNALS DESIGNATED TO BE PLACED IN "FLASH MODE" WILL REQUIRE FLAGGERS & FLAGGER SIGNING SEE SHEET D4.

- #### GENERAL NOTES
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
 - LOCATE CMS SIGNS ON GLENN HWY 1000FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

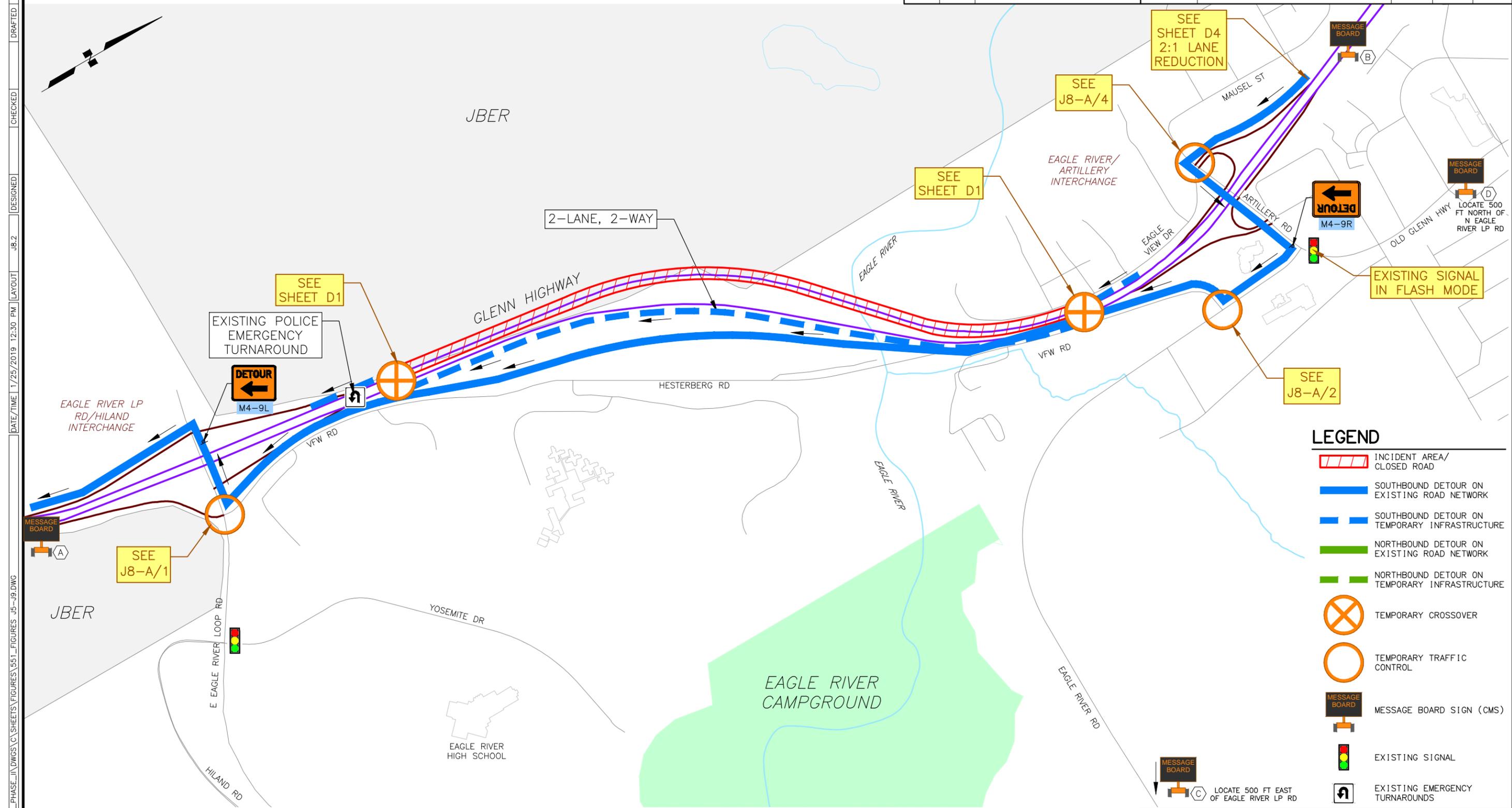
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY EAGLE RIVER LP RD/HILAND TO EAGLE RIVER/ARTILLERY INTERCHANGE NORTHBOUND CLOSURE

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_FIGURES_J5-J9.DWG
 DATE/TIME 7/25/2019 12:30 PM LAYOUT J8.1B
 DESIGNED CHECKED DRAFTED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	J8.2	J17-G



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

- #### DETOUR CMS MESSAGES
- (A) NOT USED
 - (B) GLENN HWY CLOSED AT ARTILLERY/FOLLOW SIGNED DETOUR ROUTE
 - (C) CONGESTION AT OLD GLENN/FOLLOW EAGLE RIVER LP TO GLENN HWY
 - (D) CONGESTION AT ARTILLERY/FOLLOW EAGLE RIVER LP TO HILAND

- #### CROSSOVER CMS MESSAGES
- (A) LEFT LANE CLOSED AHEAD/GLENN HWY REDUCED TO ONE LANE
 - (B) GLENN HWY REDUCED TO ONE LANE/FOLLOW DETOUR
 - (C) NOT USED
 - (D) NOT USED

DETOUR NOTES

1. DURING PEAK PERIODS, TRAFFIC SIGNALS DESIGNATED TO BE PLACED IN "FLASH MODE" WILL REQUIRE FLAGGERS & FLAGGER SIGNING SEE SHEET D4.

- #### GENERAL NOTES
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
 - LOCATE CMS SIGNS ON GLENN HWY 1000FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

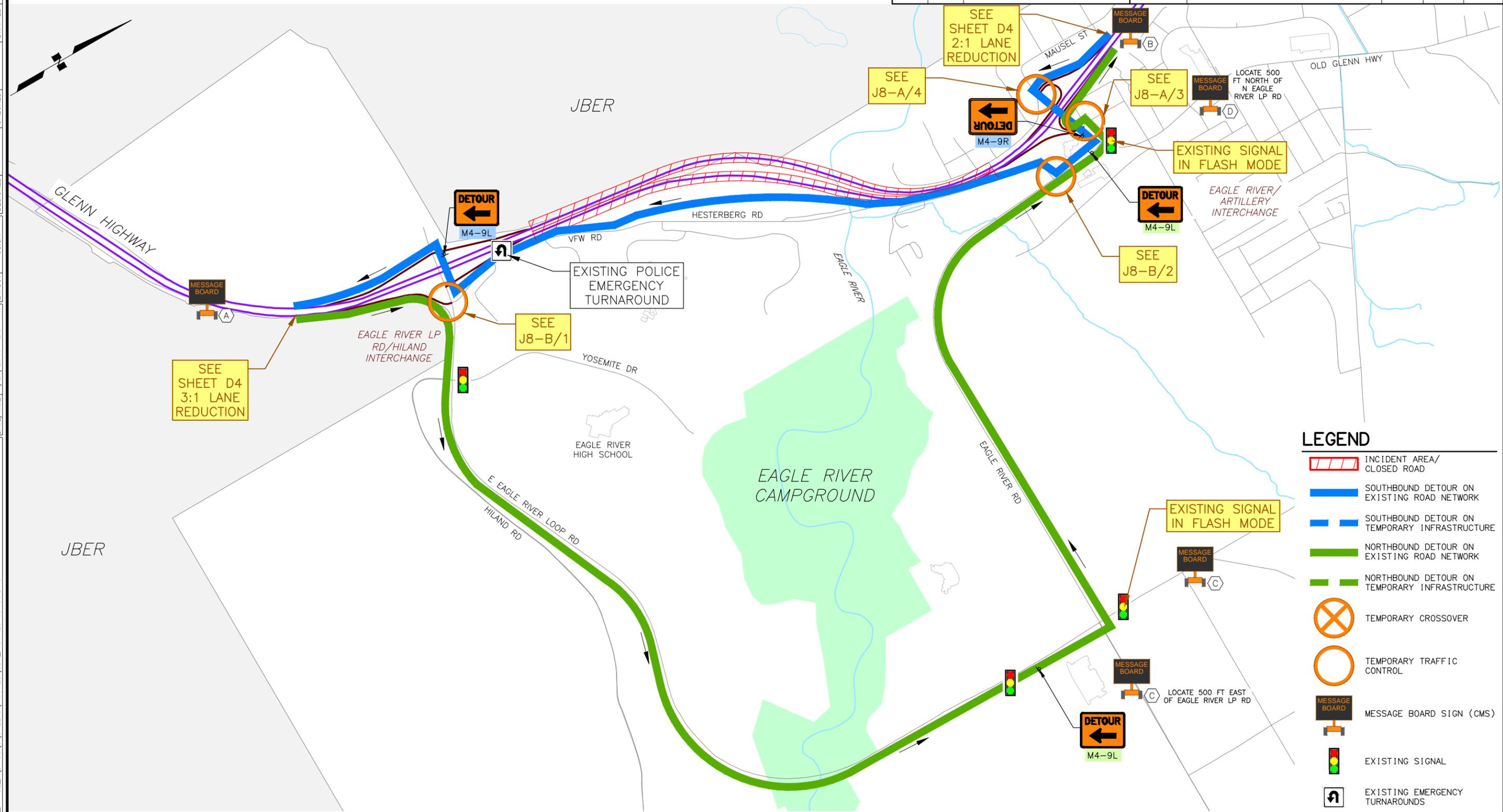
GLENN HIGHWAY EAGLE RIVER LP RD/HILAND TO EAGLE RIVER/ARTILLERY INTERCHANGE SOUTHBOUND CLOSURE

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
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CERT. OF AUTH. NO. AECL 1102

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_FIGURES_J5-J9.DWG
 DATE/TIME 7/25/2019 12:30 PM LAYOUT J8.2
 DESIGNED CHECKED DRAFTED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J8.3AJ17-G	

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 DATE/TIME 7/25/2019 12:31 PM LAYOUT J8_3A
 DESIGNED J8_3A
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- DETOUR CMS MESSAGES**
- (A) GLENN HWY CLOSED AT HILAND/FOLLOW SIGNED DETOUR ROUTE
 - (B) GLENN HWY CLOSED AT ARTILLERY/FOLLOW SIGNED DETOUR ROUTE
 - (C) CONGESTION AT OLD GLENN/FOLLOW EAGLE RIVER LP TO GLENN HWY
 - (D) CONGESTION AT ARTILLERY NB/FOLLOW N EAGLE RIVER ACCESS TO GLENN HWY

DETOUR NOTES

- DURING PEAK PERIODS, TRAFFIC SIGNALS DESIGNATED TO BE PLACED IN "FLASH MODE" WILL REQUIRE FLAGGERS & FLAGGER SIGNING SEE SHEET D4.

GENERAL NOTES

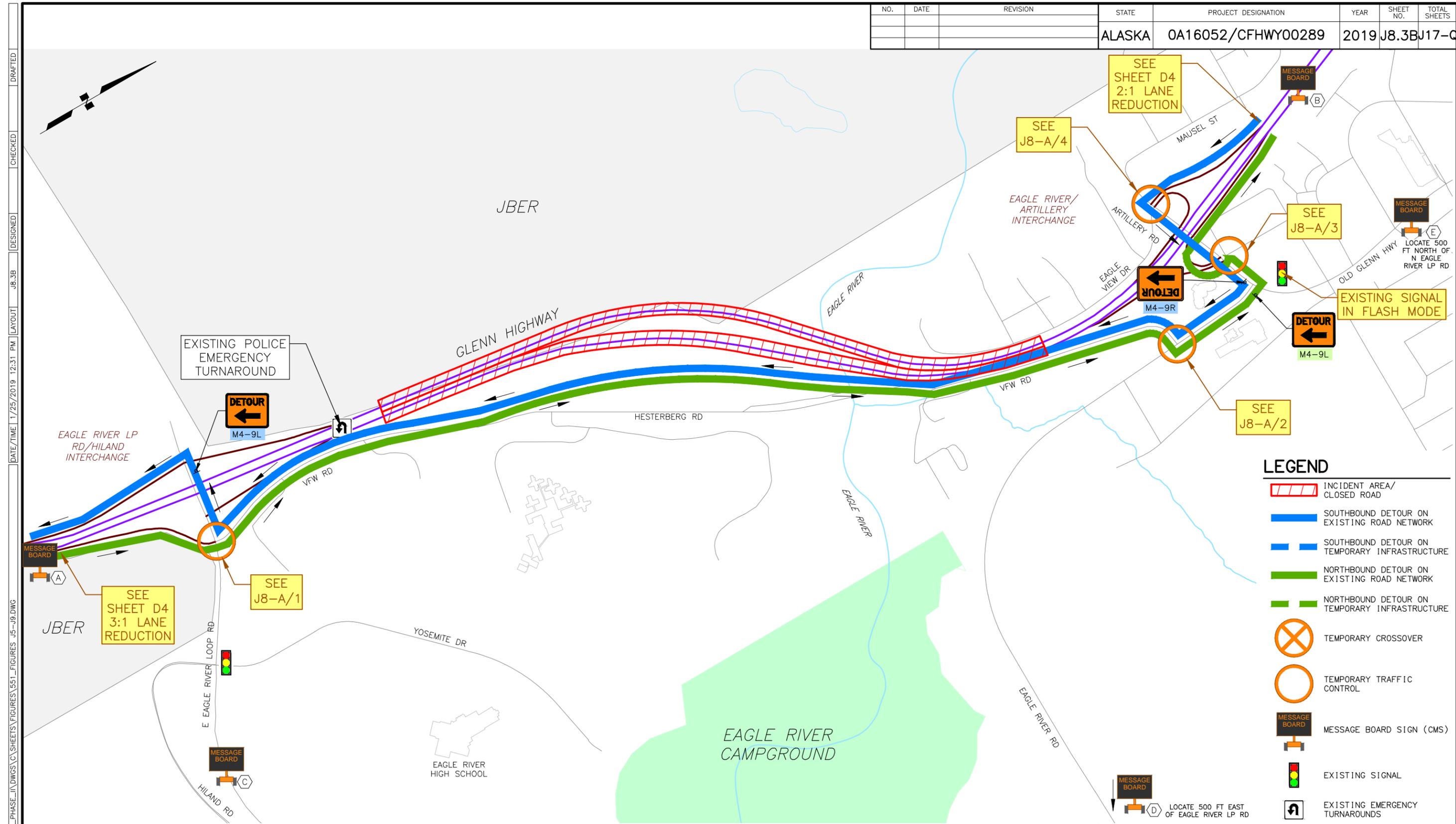
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
- HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
- PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
- LOCATE CMS SIGNS ON GLENN HWY 1000FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY
EAGLE RIVER LP RD/HILAND TO
EAGLE RIVER/ARTILLERY
INTERCHANGE
FULL CLOSURE**

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J8.3BJ17-G	



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

- DETOUR CMS MESSAGES**
- (A) GLENN HWY CLOSED AT HILAND/FOLLOW SIGNED DETOUR ROUTE
 - (B) GLENN HWY CLOSED AT ARTILLERY/FOLLOW SIGNED DETOUR ROUTE
 - (C) NB GLENN HWY CLOSED AT HILAND/FOLLOW SIGNED DETOUR ROUTE
 - (D) CONGESTION AT OLD GLENN/FOLLOW EAGLE RIVER LP TO GLENN HWY
 - (E) CONGESTION AT ARTILLERY NB/FOLLOW N EAGLE RIVER ACCESS TO GLENN HWY

DETOUR NOTES

- DURING PEAK PERIODS, TRAFFIC SIGNALS DESIGNATED TO BE PLACED IN "FLASH MODE" WILL REQUIRE FLAGGERS & FLAGGER SIGNING SEE SHEET D4.

- GENERAL NOTES**
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
 - LOCATE CMS SIGNS ON GLENN HWY 1000FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

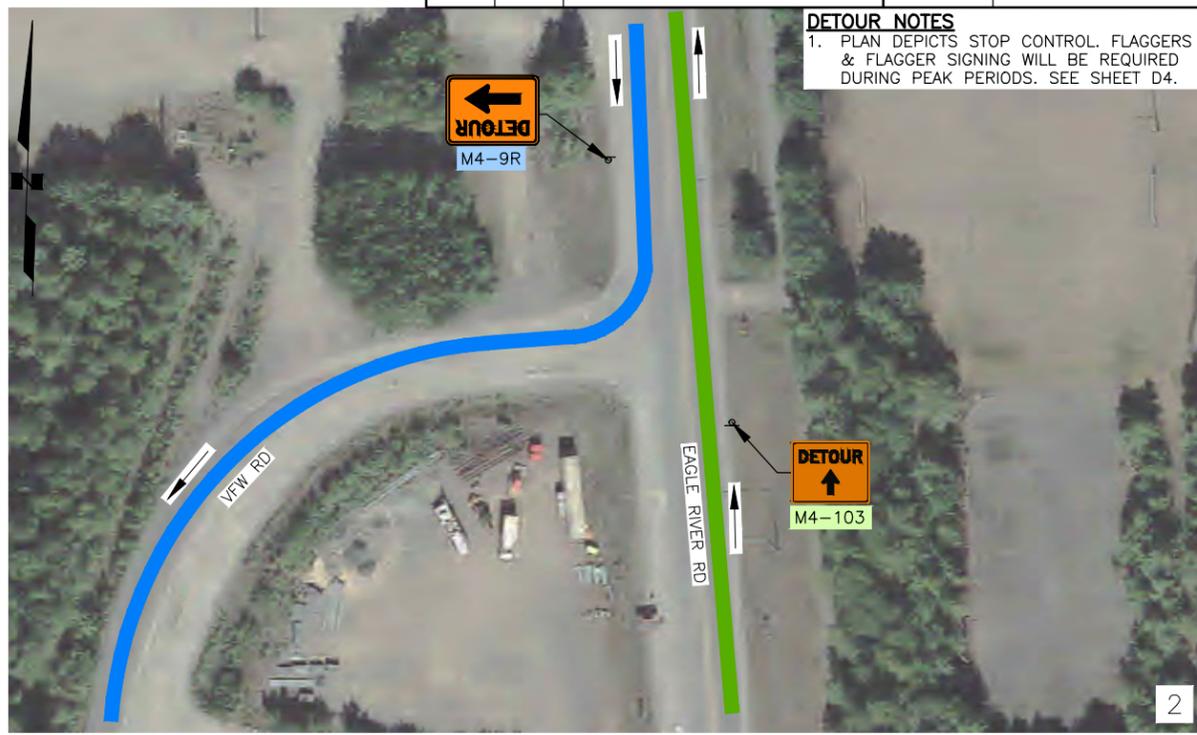
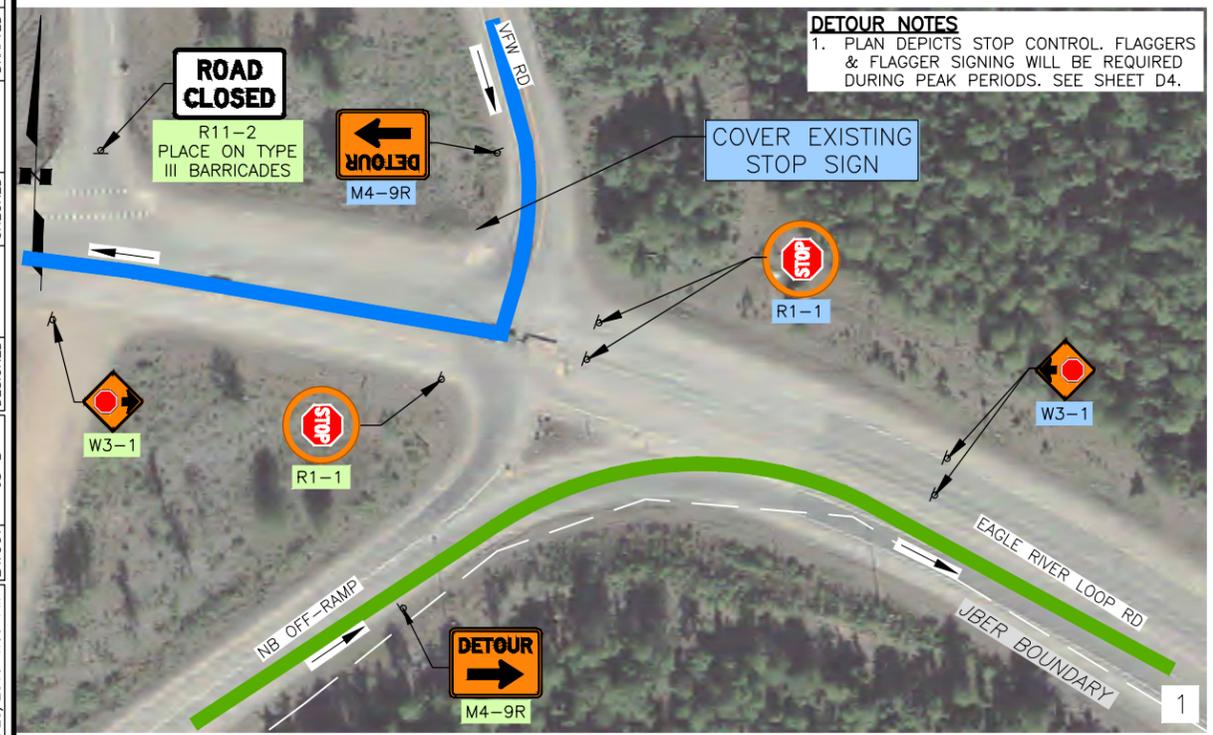
**GLENN HIGHWAY
EAGLE RIVER LP RD/HILAND TO
EAGLE RIVER/ARTILLERY
INTERCHANGE
FULL CLOSURE**

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_FIGURES_J5-J9.DWG
 DATE/TIME 7/25/2019 12:31 PM LAYOUT J8_3B [DESIGNED] [CHECKED] [DRAFTED]

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	J8-BJ17-G	

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 DATE/TIME 1/25/2019 1:09 PM
 LAYOUT J8-B
 DESIGNED
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DETOUR NOTES
 1. PLAN DEPICTS STOP CONTROL. FLAGGERS & FLAGGER SIGNING WILL BE REQUIRED DURING PEAK PERIODS. SEE SHEET D4.

DETOUR NOTES
 1. PLAN DEPICTS STOP CONTROL. FLAGGERS & FLAGGER SIGNING WILL BE REQUIRED DURING PEAK PERIODS. SEE SHEET D4.

LEGEND

	INCIDENT AREA/ CLOSED ROAD
	SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
	NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
	TEMPORARY STOP SIGN
	TEMPORARY YIELD SIGN
	TEMPORARY TRAFFIC CONTROL SIGNS
	MESSAGE BOARD SIGN (CMS)
	EXISTING SIGNAL
	EXISTING SIGN TO BE COVERED

- GENERAL NOTES**
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE W3-1 SIGNS 500 FT IN ADVANCE OF R1-1 SIGNS.
 - PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 3909 ARCTIC BLVD, SUITE 400
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 CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 EAGLE RIVER LOOP RD/HILAND
 TO EAGLE RIVER/ARTILLERY
 INTERCHANGE
 CLOSURE DETAILS**

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_QUANTITIES_J1-J10.DWG
 DATE/TIME 1/25/2019 1:15 PM LAYOUT J8-Q DESIGNED CHECKED DRAFTED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J8-Q	J17-Q

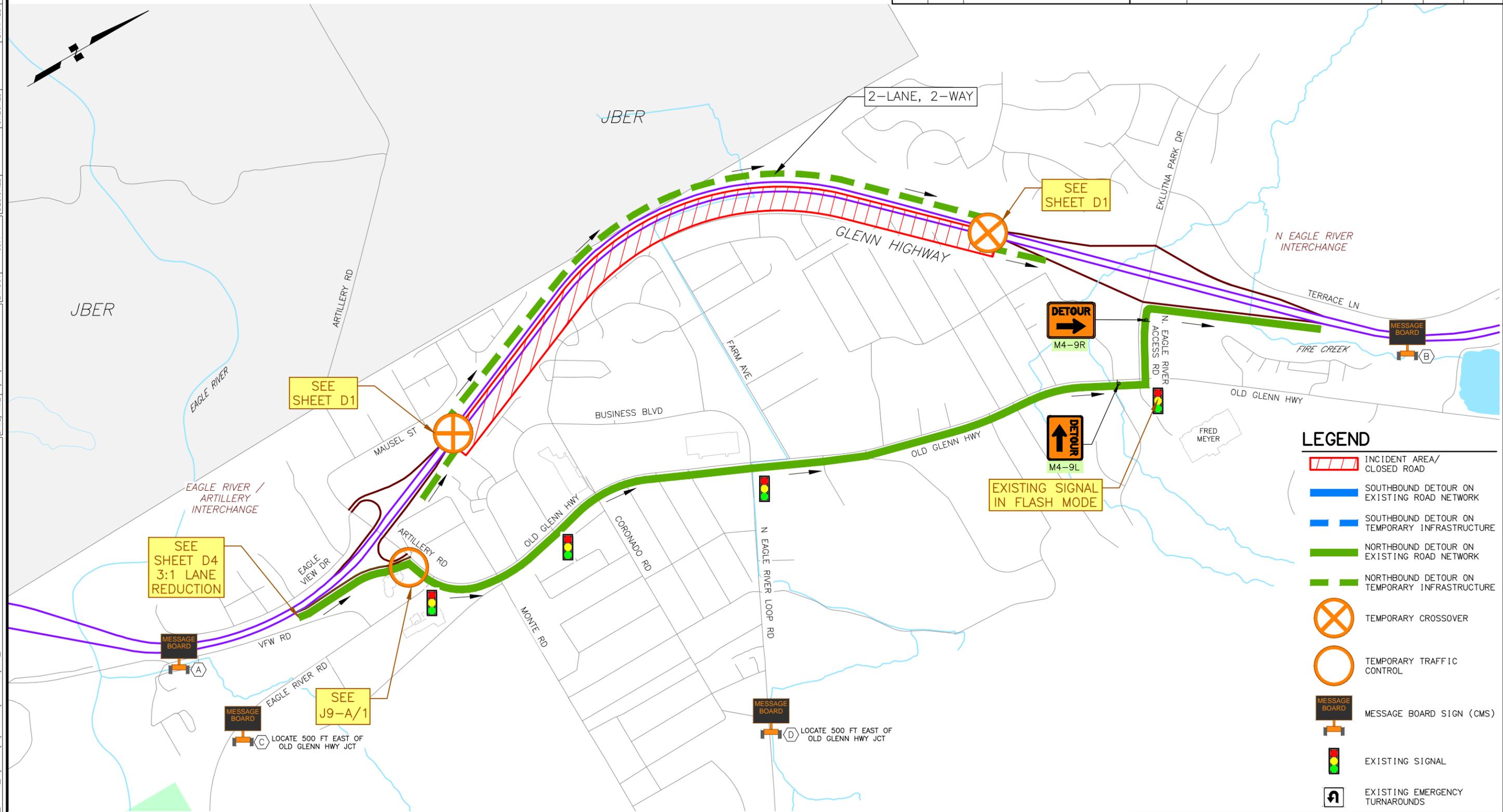
TRAFFIC CONTROL DEVICE SUMMARY: EXISTING ROAD NETWORK DETOUR						
DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J8.1A	J8.1B	J8.2	J8.3A	J8.3B
		QTY	QTY	QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3					
ROAD WORK AHEAD	CW20-1					
ROAD WORK 1 MILE	CW20-1	2	2	2	2	4
RIGHT LANE CLOSED 1/2 MILE	CW20-5			2	2	2
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A	2	2			2
RIGHT LANE CLOSED AHEAD	CW20-5R					
LEFT LANE CLOSED AHEAD	CW20-5L					
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4	4	2	2	6
LEFT LANE REDUCTION SYMBOL	CW4-2L					
ROAD CLOSED	R11-2	1		1	2	2
LANE CLOSED	R11-102	8	8	4	4	12
DETOUR (RT)	M4-10R					
DETOUR (LT)	M4-10L					
DETOUR MARKER (RT)	M4-9R		1	3	3	4
DETOUR MARKER (LT)	M4-9L	3	3	2	5	5
DETOUR (UP)	M4-103	1			1	1
DETOUR AHEAD	CW20-2					
NO RIGHT TURN	R3-1					
NO LEFT TURN	R3-2					
STOP	R1-1	6	1	5	6	5
YIELD	R1-2					
STOP AHEAD	CW3-1	5	1	5	6	5
YIELD AHEAD	CW3-2					
RIGHT ARROW	CW1-6R					
LEFT ARROW	CW1-6L					
RIGHT TURN	CW1-1R					
LEFT TURN	CW1-1L					
REVERSE CURVE RIGHT	CW1-4R					
REVERSE CURVE LEFT	CW1-4L					
DO NOT PASS	R4-1					
TWO WAY TRAFFIC	CW6-3					
45 MPH ADVISORY	CW13-1					
35 MPH ADVISORY	CW13-1					
25 MPH ADVISORY	CW13-1					
LOCAL TRAFFIC ONLY	SPECIAL					
TYPE III BARRICADES	-	9	8	6	6	14
DRUMS/TYPE II BARRICADES	-	80	80	16	16	96
CHANNELIZING DEVICES	-	120	120	100	100	220
ARROW BOARD	-	2	2	1	1	3
PORTABLE CONCRETE BARRIERS	-					
TEMPORARY CRASH CUSHION	-					
PORTABLE LIGHTING	-	2	2	1	1	3
CHANGEABLE MESSAGE BOARD	-	5	5	4	5	5
SURFACE MOUNT FLEXIBLE DELINEATORS	-					

TRAFFIC CONTROL DEVICE SUMMARY: CROSSOVER DETOUR						
DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J8.1A	J8.1B	J8.2	J8.3A	J8.3B
		QTY	QTY	QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3					
ROAD WORK AHEAD	CW20-1	4	4	4		
ROAD WORK 1 MILE	CW20-1	2	2	2		
RIGHT LANE CLOSED 1/2 MILE	CW20-5					
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A	2	2	2		
RIGHT LANE CLOSED AHEAD	CW20-5R	2	2	2		
LEFT LANE CLOSED AHEAD	CW20-5L	2	2	2		
RIGHT LANE REDUCTION SYMBOL	CW4-2R	6	6	6		
LEFT LANE REDUCTION SYMBOL	CW4-2L	2	2	2		
ROAD CLOSED	R11-2	1	1	1		
LANE CLOSED	R11-102	8	8	8		
DETOUR (RT)	M4-10R					
DETOUR (LT)	M4-10L					
DETOUR MARKER (RT)	M4-9R					
DETOUR MARKER (LT)	M4-9L					
DETOUR (UP)	M4-103					
DETOUR AHEAD	CW20-2					
NO RIGHT TURN	R3-1					
NO LEFT TURN	R3-2					
STOP	R1-1					
YIELD	R1-2					
STOP AHEAD	CW3-1					
YIELD AHEAD	CW3-2					
RIGHT ARROW	CW1-6R					
LEFT ARROW	CW1-6L	1	1	1		
RIGHT TURN	CW1-1R					
LEFT TURN	CW1-1L					
REVERSE CURVE RIGHT	CW1-4R	2	2	2		
REVERSE CURVE LEFT	CW1-4L	2	2	2		
DO NOT PASS	R4-1	20	20	20		
TWO WAY TRAFFIC	CW6-3	20	20	20		
45 MPH ADVISORY	CW13-1					
35 MPH ADVISORY	CW13-1	4	4	4		
25 MPH ADVISORY	CW13-1					
LOCAL TRAFFIC ONLY	SPECIAL					
TYPE III BARRICADES	-	18	18	18		
DRUMS/TYPE II BARRICADES	-	150	150	150		
CHANNELIZING DEVICES	-	320	320	320		
ARROW BOARD	-	4	4	4		
PORTABLE CONCRETE BARRIERS	-					
TEMPORARY CRASH CUSHION	-					
PORTABLE LIGHTING	-	4	4	4		
CHANGEABLE MESSAGE BOARD	-	2	2	2		
SURFACE MOUNT FLEXIBLE DELINEATORS	-	200	200	200		

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY EAGLE RIVER LP RD TO EAGLE RIVER — ARTILLERY SEGMENT QUANTITIES
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J9.1	J17-Q

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_FIGURES_J5-J9.DWG
 DATE/TIME 7/25/2019 12:31 PM LAYOUT J9.1
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LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

DETOUR CMS MESSAGES

- (A) GLENN HWY CLOSED AT ARTILLERY/FOLLOW SIGNED DETOUR ROUTE
- (B) NOT USED
- (C) NB GLENN HWY CLOSED AT ARTILLERY/FOLLOW OLD GLENN HWY DETOUR ROUTE
- (D) NB GLENN HWY CLOSED AT ARTILLERY/FOLLOW OLD GLENN TO N EAGLE RIVER

CROSSOVER CMS MESSAGES

- (A) GLENN HWY REDUCED TO ONE LANE/FOLLOW DETOUR
- (B) LEFT LANE CLOSED AHEAD/GLENN HWY REDUCED TO ONE LANE
- (C) NOT USED
- (D) NOT USED

DETOUR NOTES

1. DURING PEAK PERIODS, TRAFFIC SIGNALS DESIGNATED TO BE PLACED IN "FLASH MODE" WILL REQUIRE FLAGGERS & FLAGGER SIGNING SEE SHEET D4. OTHER TRAFFIC SIGNALS ALONG THE DETOUR ROUTE MAY BE PLACED ON FLASH MODE AS DIRECTED BY THE ENGINEER.

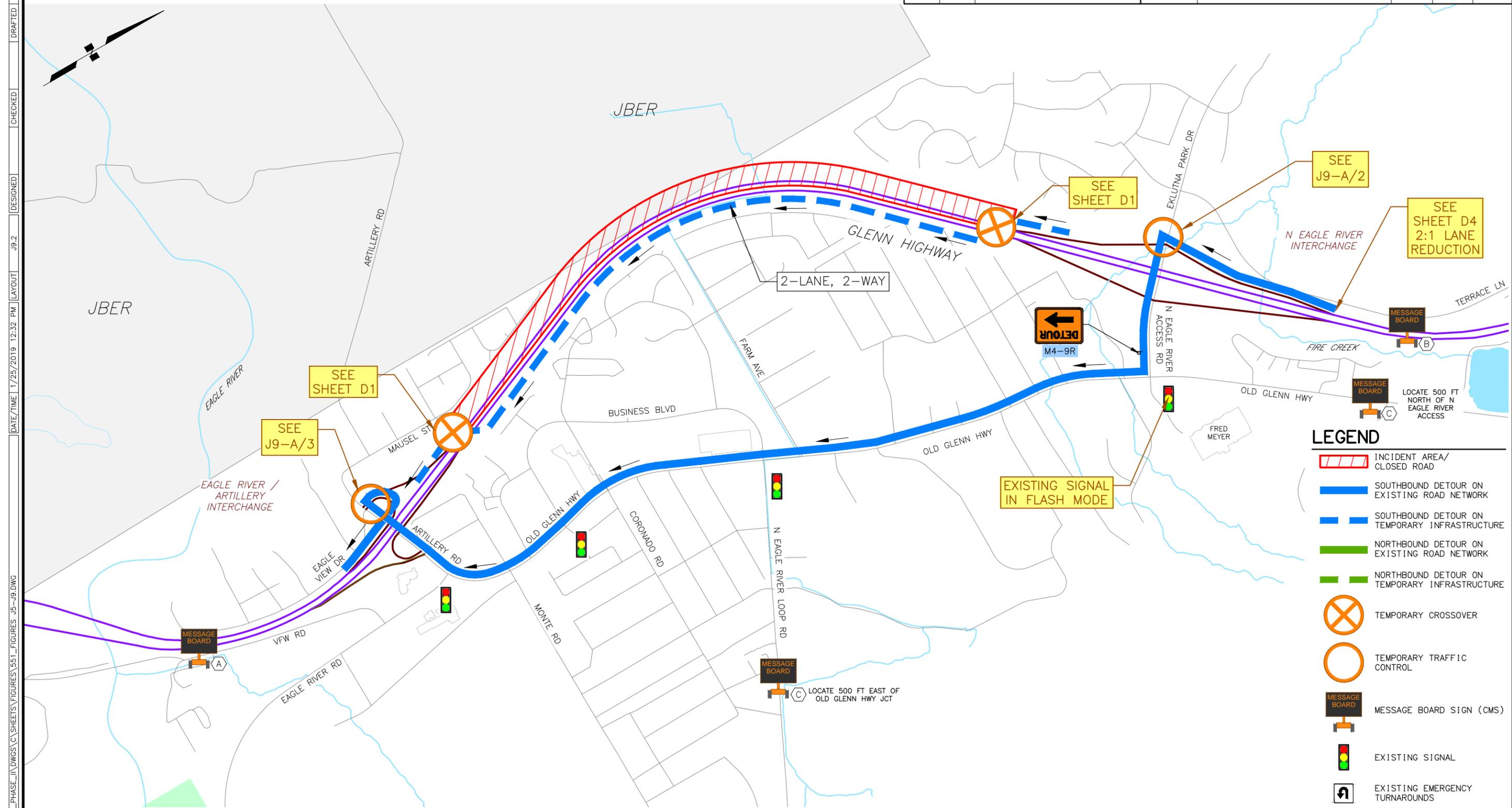
GENERAL NOTES

1. ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
2. HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
3. PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
4. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

PLANS DEVELOPED BY:
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STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
**GLENN HIGHWAY
 EAGLE RIVER/ARTILLERY TO
 N EAGLE RIVER INTERCHANGE
 NORTHBOUND CLOSURE**

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J9.2	J17-G



FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_1\DWGS\C\SHEETS\FIGURES\551_FIGURES_J5-J9.DWG
 DATE/TIME 1/25/2019 12:32 PM LAYOUT J9.2
 DESIGNED J9.2
 CHECKED
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DETOUR CMS MESSAGES

- (A) NOT USED
- (B) GLENN HWY CLOSED AT N EAGLE RIVER/FOLLOW SIGNED DETOUR ROUTE
- (C) SB GLENN HWY CLOSED AT N EAGLE RIVER/FOLLOW OLD GLENN HWY TO ARTILLERY

CROSSOVER CMS MESSAGES

- (A) LEFT LANE CLOSED AHEAD/GLENN HWY REDUCED TO ONE LANE
- (B) GLENN HWY REDUCED TO ONE LANE/FOLLOW DETOUR
- (C) NOT USED

DETOUR NOTES

1. DURING PEAK PERIODS, TRAFFIC SIGNALS DESIGNATED TO BE PLACED IN "FLASH MODE" WILL REQUIRE FLAGGERS & FLAGGER SIGNING SEE SHEET D4. OTHER TRAFFIC SIGNALS ALONG THE DETOUR ROUTE MAY BE PLACED ON FLASH MODE AS DIRECTED BY THE ENGINEER.

GENERAL NOTES

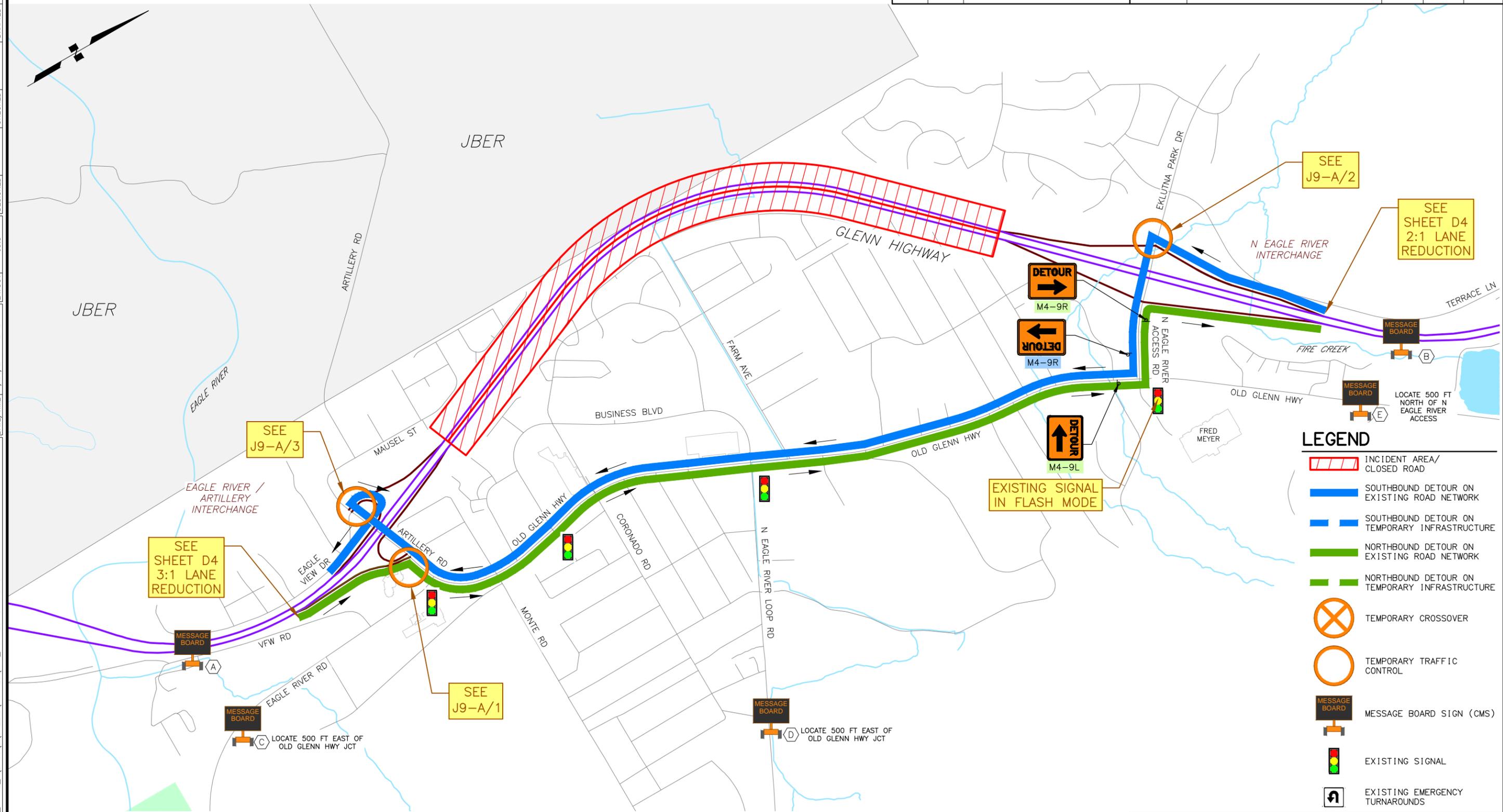
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
- HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
- PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
- LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 3909 ARCTIC BLVD, SUITE 400
 ANCHORAGE, ALASKA 99503
 (907) 346-2373
 CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
**GLENN HIGHWAY
 EAGLE RIVER/ARTILLERY TO
 N EAGLE RIVER INTERCHANGE
 SOUTHBOUND CLOSURE**

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J9.3	J17-G

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_FIGURES_J5-J9.DWG
 DATE/TIME 7/25/2019 12:32 PM LAYOUT J9.3
 DESIGNED J9.3
 CHECKED
 DRAFTED



DETOUR CMS MESSAGES

- (A) GLENN HWY CLOSED AT ARTILLERY/FOLLOW SIGNED DETOUR ROUTE
- (B) GLENN HWY CLOSED AT N EAGLE RIVER/FOLLOW SIGNED DETOUR ROUTE
- (C) NB GLENN HWY CLOSED AT ARTILLERY/FOLLOW OLD GLENN TO N EAGLE RIVER
- (D) GLENN HWY CLOSED BETWEEN ARTILLERY - N EAGLE RIVER/SB USE ARTILLERY/NB USE N EAGLE RIVER
- (E) SB GLENN HWY CLOSED AT N EAGLE RIVER/FOLLOW OLD GLENN TO ARTILLERY

DETOUR NOTES

1. DURING PEAK PERIODS, TRAFFIC SIGNALS DESIGNATED TO BE PLACED IN "FLASH MODE" WILL REQUIRE FLAGGERS & FLAGGER SIGNING SEE SHEET D4. OTHER TRAFFIC SIGNALS ALONG THE DETOUR ROUTE MAY BE PLACED ON FLASH MODE AS DIRECTED BY THE ENGINEER.

GENERAL NOTES

1. ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
2. HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
3. PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
4. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

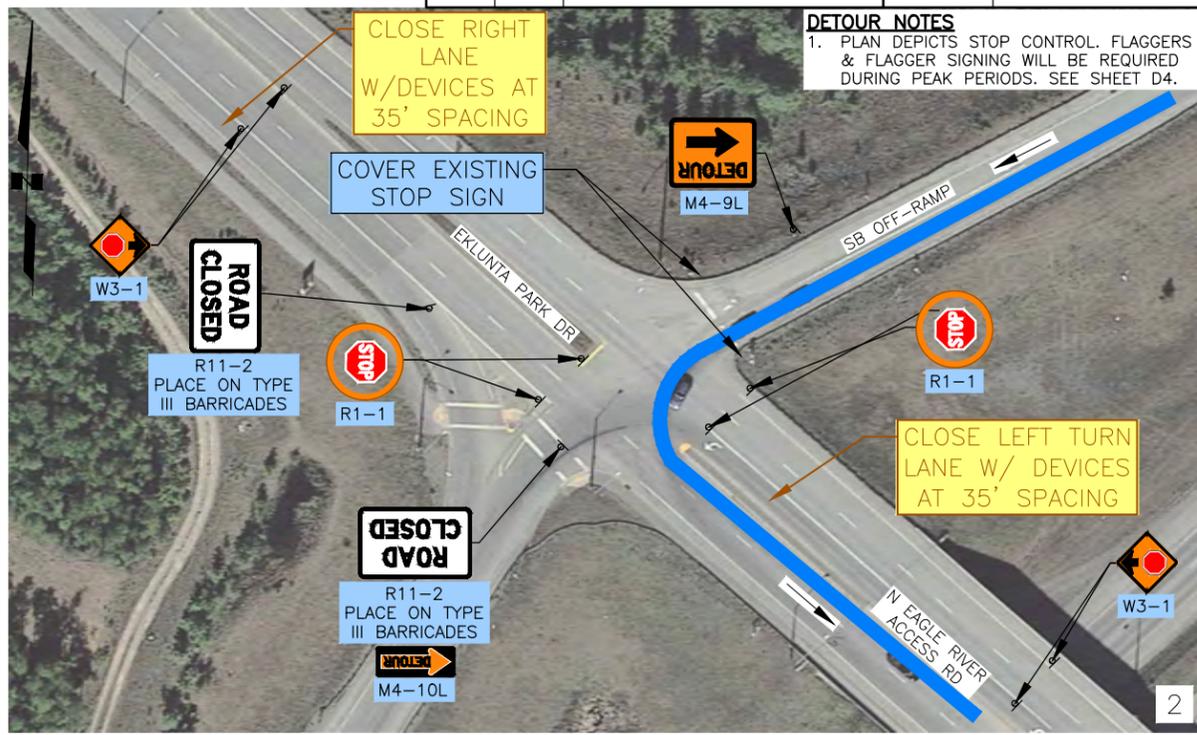
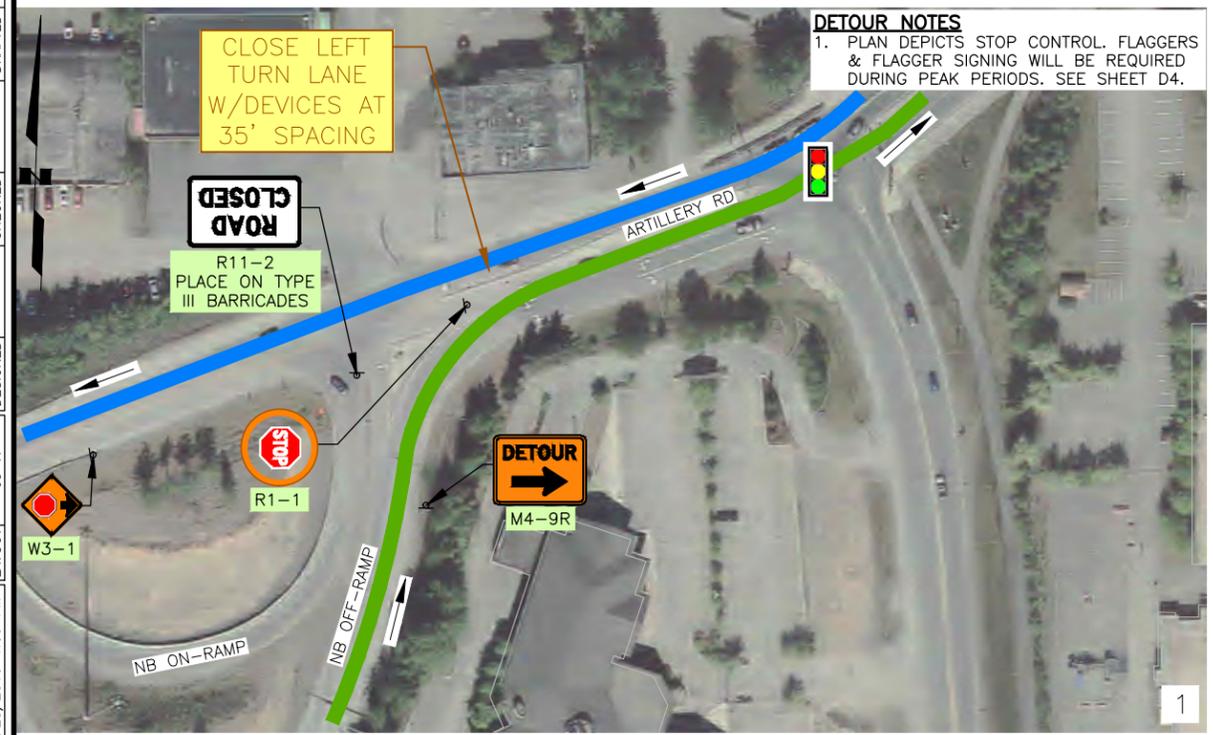
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY
EAGLE RIVER/ARTILLERY TO
N EAGLE RIVER INTERCHANGE
FULL CLOSURE**

PLANS DEVELOPED BY:
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(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	J9-AJ17-G	

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 DATE/TIME 1/25/2019 1:09 PM LAYOUT J9-A
 DESIGNED J9-A
 CHECKED
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LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- TEMPORARY STOP SIGN
- TEMPORARY YIELD SIGN
- TEMPORARY TRAFFIC CONTROL SIGNS
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING SIGN TO BE COVERED

- GENERAL NOTES**
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE W3-1 SIGNS 500 FT IN ADVANCE OF R1-1 SIGNS.
 - PLACE M4-9,M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 EAGLE RIVER/ARTILLERY TO N
 EAGLE RIVER INTERCHANGE
 CLOSURE DETAILS**

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
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 CERT. OF AUTH. NO. AECL 1102

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_QUANTITIES_J1-J10.DWG
 DATE/TIME 1/25/2019 1:15 PM LAYOUT J9-Q DESIGNED CHECKED DRAFTED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J9-Q	J17-Q

TRAFFIC CONTROL DEVICE SUMMARY: EXISTING ROAD NETWORK DETOUR

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J9.1	J9.2	J9.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1	2	2	4
ROAD WORK 1 MILE	CW20-1		2	4
RIGHT LANE CLOSED 1/2 MILE	CW20-5	2		
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A			
RIGHT LANE CLOSED AHEAD	CW20-5R			
LEFT LANE CLOSED AHEAD	CW20-5L			
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4	2	4
LEFT LANE REDUCTION SYMBOL	CW4-2L			
ROAD CLOSED	R11-2	1	2	3
LANE CLOSED	R11-102	8	4	8
DETOUR (RT)	M4-10R			
DETOUR (LT)	M4-10L		1	1
DETOUR MARKER (RT)	M4-9R	2	2	4
DETOUR MARKER (LT)	M4-9L	1	1	2
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2			
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1	1	3	4
YIELD	R1-2		1	1
STOP AHEAD	CW3-1	1	3	4
YIELD AHEAD	CW3-2			
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L			
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R			
REVERSE CURVE LEFT	CW1-4L			
DO NOT PASS	R4-1			
TWO WAY TRAFFIC	CW6-3			
45 MPH ADVISORY	CW13-1			
35 MPH ADVISORY	CW13-1			
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-	9	6	11
DRUMS/TYPE II BARRICADES	-	80	16	32
CHANNELIZING DEVICES	-	125	120	245
ARROW BOARD	-	2	1	2
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-	2	1	2
CHANGEABLE MESSAGE BOARD	-	4	4	5
SURFACE MOUNT FLEXIBLE DELINEATORS	-			

TRAFFIC CONTROL DEVICE SUMMARY: CROSSOVER DETOUR

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J9.1	J9.2	J9.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1	4	4	
ROAD WORK 1 MILE	CW20-1	2	2	
RIGHT LANE CLOSED 1/2 MILE	CW20-5		2	
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A	2		
RIGHT LANE CLOSED AHEAD	CW20-5R	2	2	
LEFT LANE CLOSED AHEAD	CW20-5L	2	2	
RIGHT LANE REDUCTION SYMBOL	CW4-2R	6	4	
LEFT LANE REDUCTION SYMBOL	CW4-2L	2	2	
ROAD CLOSED	R11-2	1	1	
LANE CLOSED	R11-102	8	4	
DETOUR (RT)	M4-10R			
DETOUR (LT)	M4-10L			
DETOUR MARKER (RT)	M4-9R			
DETOUR MARKER (LT)	M4-9L			
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2			
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1			
YIELD	R1-2			
STOP AHEAD	CW3-1			
YIELD AHEAD	CW3-2			
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L	1	1	
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R	2	2	
REVERSE CURVE LEFT	CW1-4L	2	2	
DO NOT PASS	R4-1	20	20	
TWO WAY TRAFFIC	CW6-3	20	20	
45 MPH ADVISORY	CW13-1			
35 MPH ADVISORY	CW13-1	4	4	
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-	18	14	
DRUMS/TYPE II BARRICADES	-	150	86	
CHANNELIZING DEVICES	-	320	300	
ARROW BOARD	-	4	3	
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-	4	3	
CHANGEABLE MESSAGE BOARD	-	2	2	
SURFACE MOUNT FLEXIBLE DELINEATORS	-	200	200	

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY EAGLE RIVER – ARTILLERY TO N EAGLE RIVER SEGMENT QUANTITIES
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J10.1	J17-G

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_1\DWGS\C\DWGS\C\SHEETS\FIGURES\551_FIGURES_J10-J13.DWG
 DATE/TIME 7/25/2019 12:33 PM [LAYOUT] J10.1 [DESIGNED] [CHECKED] [DRAFTED]



- DETOUR CMS MESSAGES**
- (A) GLENN HWY CLOSED AT N EAGLE RIVER/FOLLOW OLD GLENN DETOUR
 - (B) NOT USED
 - (C) NB GLENN HWY CLOSED AT N EAGLE RIVER/FOLLOW OLD GLENN DETOUR
- CROSSOVER CMS MESSAGES**
- (A) GLENN HWY REDUCED TO ONE LANE/FOLLOW DETOUR
 - (B) LEFT LANE CLOSED AHEAD/GLENN HIGHWAY REDUCED TO ONE LANE
 - (C) NOT USED

DETOUR NOTES

- DURING PEAK PERIODS, TRAFFIC SIGNALS DESIGNATED TO BE PLACED IN "FLASH MODE" WILL REQUIRE FLAGGERS & FLAGGER. SEE SHEET D4.

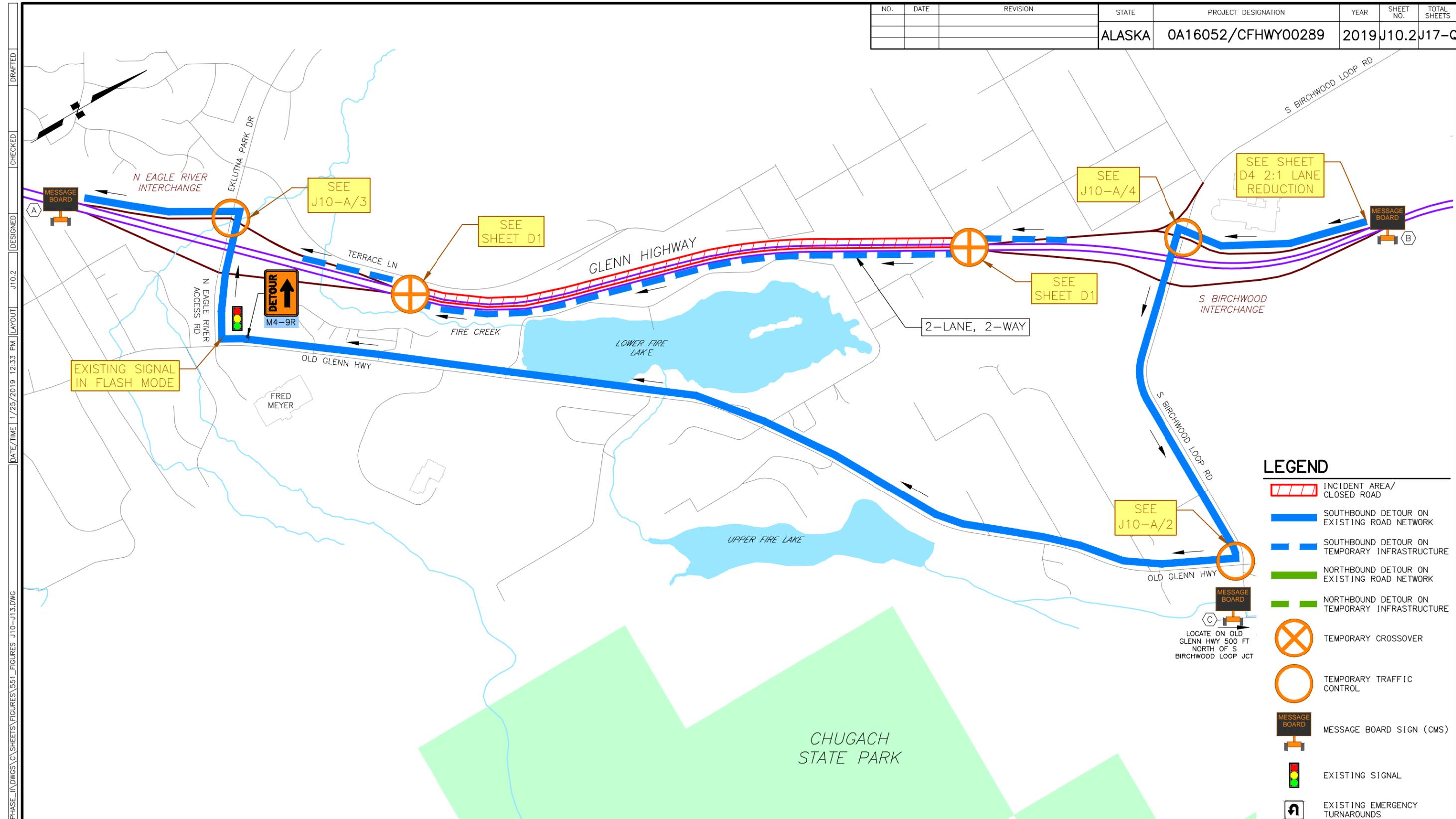
- GENERAL NOTES**
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
 - LOCATE CMS SIGNS ON GLENN HWY 1000FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

PLANS DEVELOPED BY:
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STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 N EAGLE RIVER TO S
 BIRCHWOOD INTERCHANGE
 NORTHBOUND CLOSURE**

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J10.2	J17-G



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

- DETOUR CMS MESSAGES**
- (A) NOT USED
 - (B) GLENN HWY CLOSED AT S BIRCHWOOD/FOLLOW OLD GLENN DETOUR
 - (C) SB GLENN HWY CLOSED AT S BIRCHWOOD/FOLLOW OLD GLENN DETOUR
- CROSSOVER CMS MESSAGES**
- (A) LEFT LANE CLOSED AHEAD/GLENN HIGHWAY REDUCED TO ONE LANE
 - (B) GLENN HIGHWAY REDUCED TO ONE LANE/FOLLOW DETOUR
 - (C) NOT USED

DETOUR NOTES

- DURING PEAK PERIODS, TRAFFIC SIGNALS DESIGNATED TO BE PLACED IN "FLASH MODE" WILL REQUIRE FLAGGERS & FLAGGER. SEE SHEET D4.

- GENERAL NOTES**
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
 - LOCATE CMS SIGNS ON GLENN HWY 1000FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

PLANS DEVELOPED BY:
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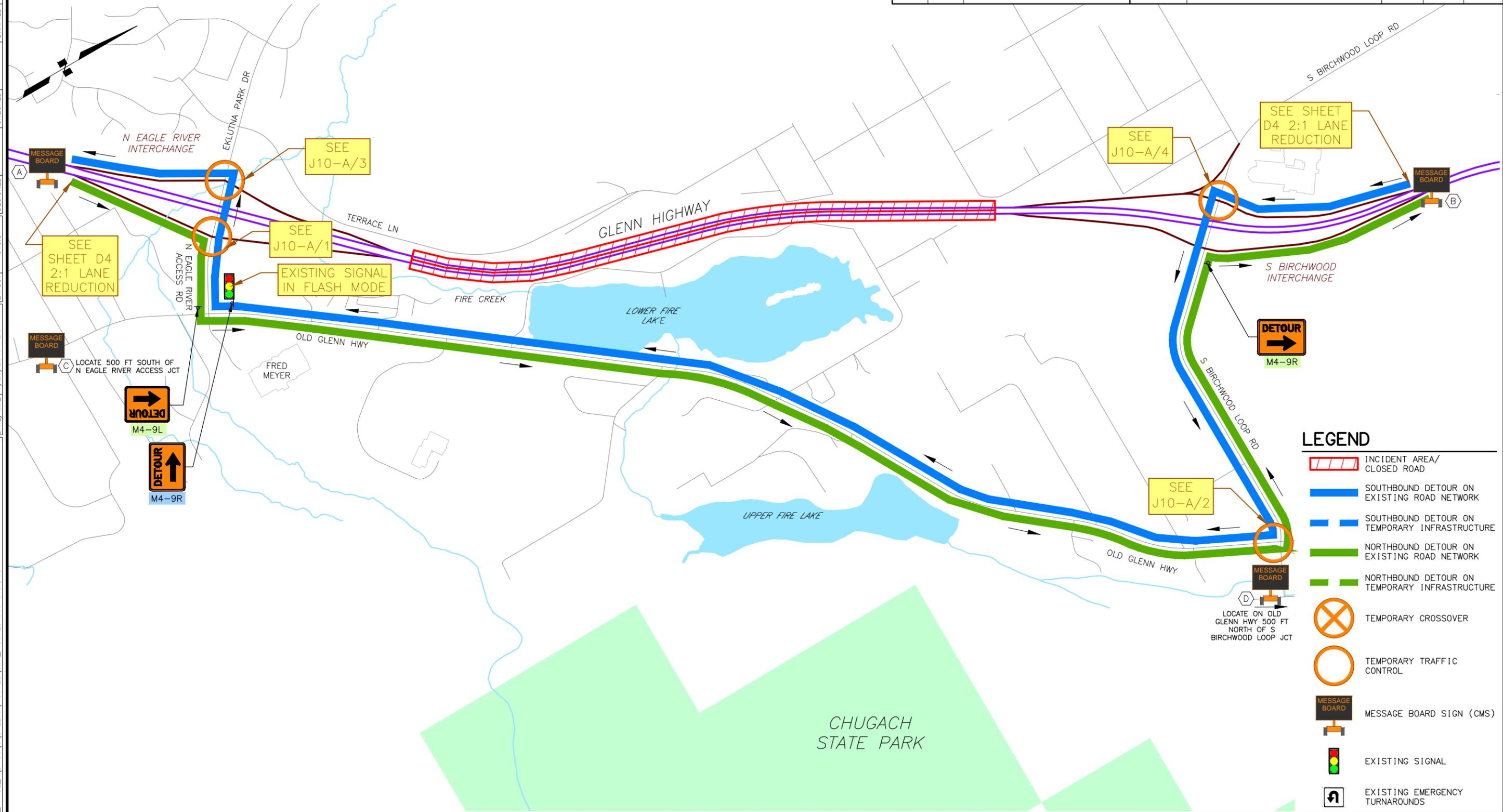
STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

GLENN HIGHWAY N EAGLE RIVER TO S BIRCHWOOD INTERCHANGE SOUTHBOUND CLOSURE

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J10.3	J17-G

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 DATE/TIME 7/25/2019 12:34 PM
 LAYOUT J10.3
 DESIGNED J10.3
 CHECKED
 DRAFTED



- DETOUR CMS MESSAGES**
- (A) GLENN HWY CLOSED AT N EAGLE RIVER/FOLLOW OLD GLENN DETOUR
 - (B) GLENN HWY CLOSED AT S BIRCHWOOD/FOLLOW OLD GLENN DETOUR
 - (C) NB GLENN HWY CLOSED AT N EAGLE RIVER/FOLLOW OLD GLENN DETOUR
 - (D) SB GLENN HWY CLOSED AT S BIRCHWOOD/FOLLOW OLD GLENN DETOUR

DETOUR NOTES

- DURING PEAK PERIODS, TRAFFIC SIGNALS DESIGNATED TO BE PLACED IN "FLASH MODE" WILL REQUIRE FLAGGERS & FLAGGER. SEE SHEET D4.

- GENERAL NOTES**
- ALL SIGNS ON GLENN HWY SHALL BE "FREWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
 - LOCATE CMS SIGNS ON GLENN HWY 1000FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

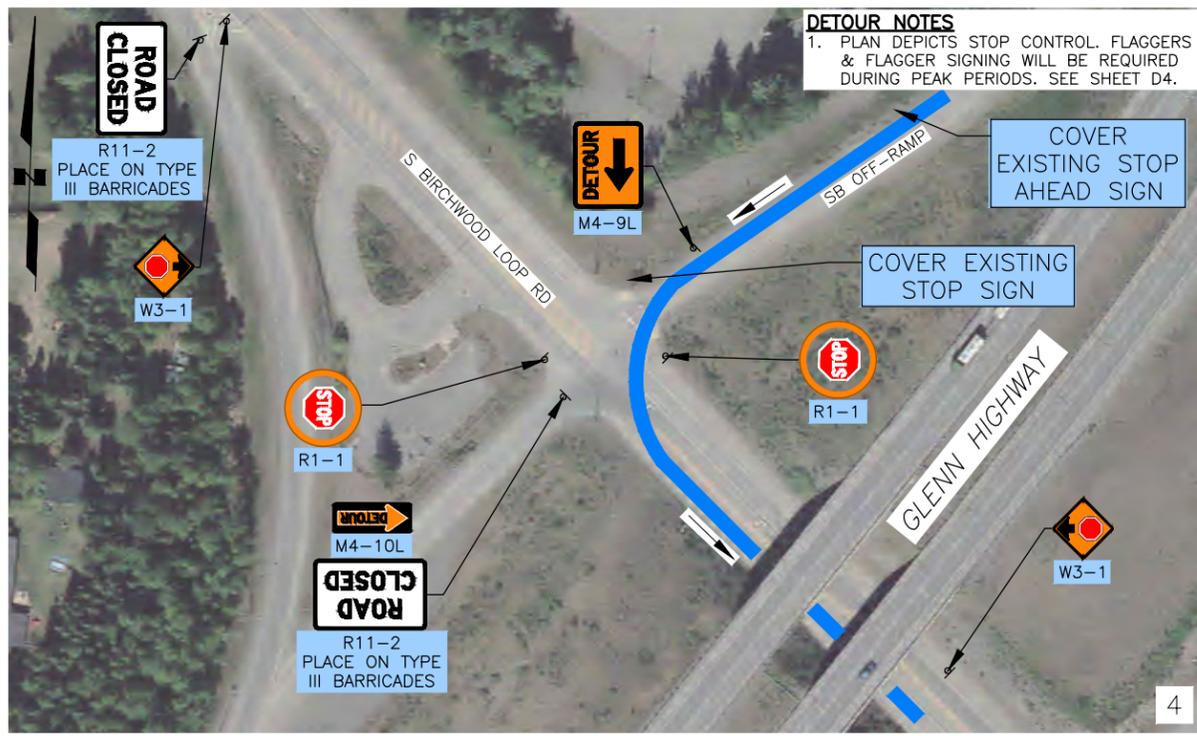
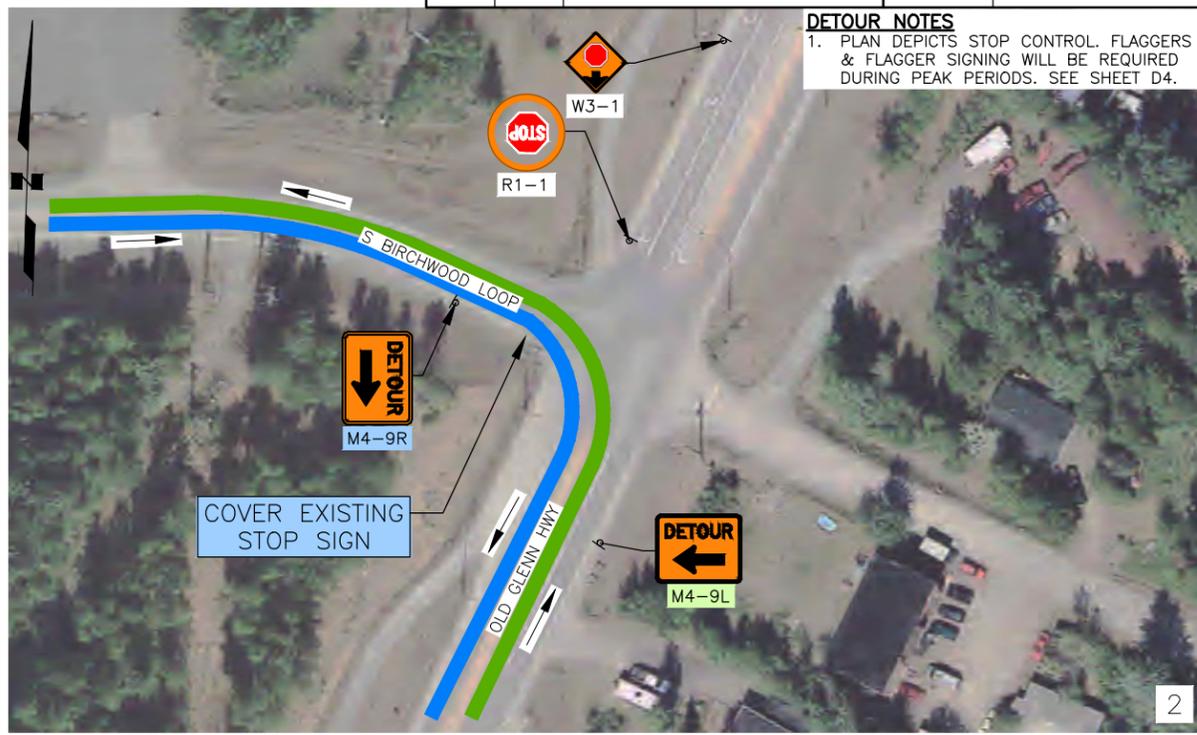
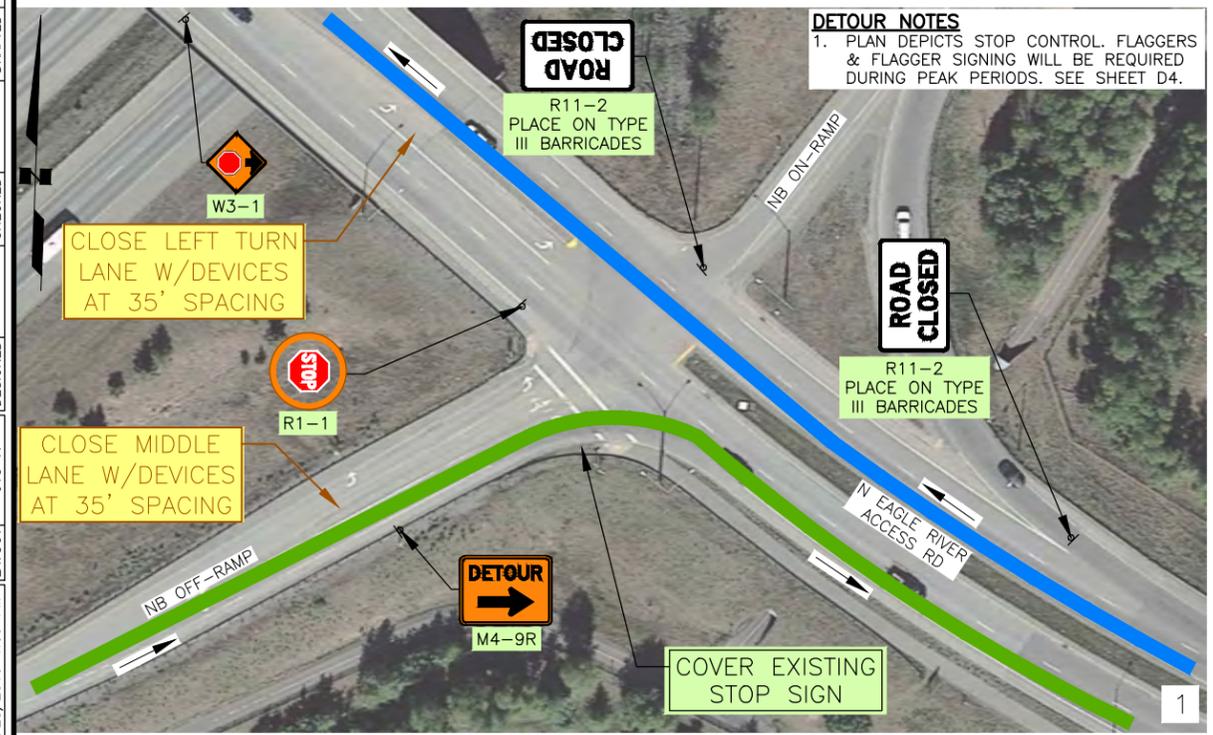
PLANS DEVELOPED BY:
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 CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 N EAGLE RIVER TO S
 BIRCHWOOD INTERCHANGE
 FULL CLOSURE**

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J10-AJ17-Q	

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 DATE/TIME 1/25/2019 1:09 PM [LAYOUT] J10-A [DESIGNED] [CHECKED] [DRAFTED]



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- TEMPORARY STOP SIGN
- TEMPORARY YIELD SIGN
- TEMPORARY TRAFFIC CONTROL SIGNS
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- COVER EXISTING EXISTING SIGN TO BE COVERED

- GENERAL NOTES**
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE W3-1 AND W3-2 SIGNS 500 FT IN ADVANCE OF R1-1 AND R1-2 SIGNS.
 - PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
**GLENN HIGHWAY
 N EAGLE RIVER TO S BIRCHWOOD
 INTERCHANGE
 CLOSURE DETAILS**

PLANS DEVELOPED BY:
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FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_QUANTITIES_J1-J10.DWG
 DATE/TIME 1/25/2019 1:15 PM LAYOUT J10-Q DESIGNED CHECKED DRAFTED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J10-Q	17-Q

TRAFFIC CONTROL DEVICE SUMMARY: EXISTING ROAD NETWORK DETOUR

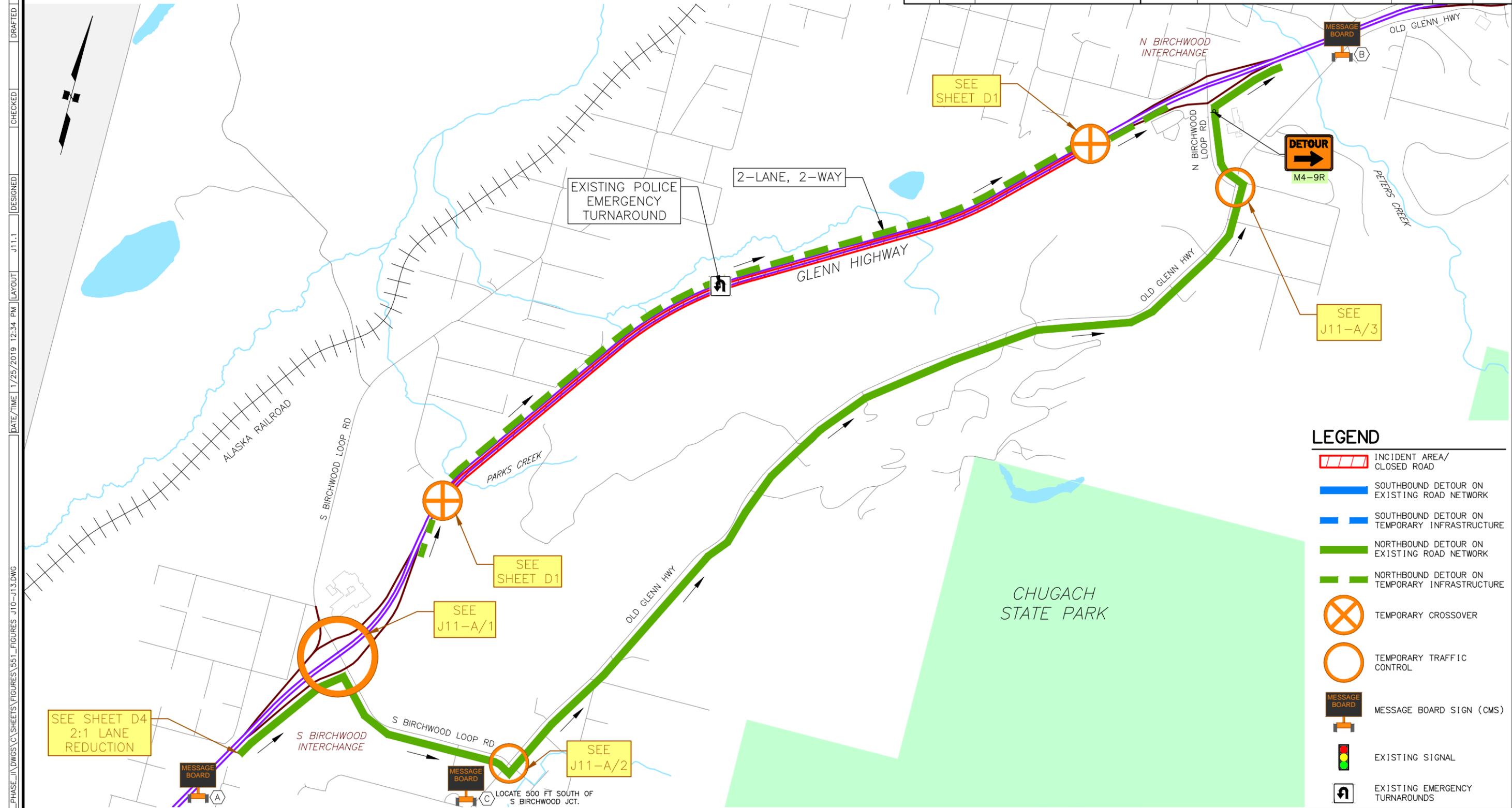
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		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1			
ROAD WORK 1 MILE	CW20-1	2	2	4
RIGHT LANE CLOSED 1/2 MILE	CW20-5	2	2	4
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A			
RIGHT LANE CLOSED AHEAD	CW20-5R			
LEFT LANE CLOSED AHEAD	CW20-5L			
RIGHT LANE REDUCTION SYMBOL	CW4-2R	2	2	4
LEFT LANE REDUCTION SYMBOL	CW4-2L			
ROAD CLOSED	R11-2	2	2	4
LANE CLOSED	R11-102	4	4	8
DETOUR (RT)	M4-10R			
DETOUR (LT)	M4-10L		1	1
DETOUR MARKER (RT)	M4-9R	2	2	4
DETOUR MARKER (LT)	M4-9L	2	2	4
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2			
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1	2	4	6
YIELD	R1-2		1	1
STOP AHEAD	CW3-1	2	4	6
YIELD AHEAD	CW3-2		1	1
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L			
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R			
REVERSE CURVE LEFT	CW1-4L			
DO NOT PASS	R4-1			
TWO WAY TRAFFIC	CW6-3			
45 MPH ADVISORY	CW13-1			
35 MPH ADVISORY	CW13-1			
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-	6	6	12
DRUMS/TYPE II BARRICADES	-	16	16	32
CHANNELIZING DEVICES	-	114	100	214
ARROW BOARD	-	1	1	2
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-	1	1	2
CHANGEABLE MESSAGE BOARD	-	3	3	4
SURFACE MOUNT FLEXIBLE DELINEATORS	-			

TRAFFIC CONTROL DEVICE SUMMARY: CROSSOVER DETOUR

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J10.1	J10.2	J10.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1	4	4	
ROAD WORK 1 MILE	CW20-1	2	2	
RIGHT LANE CLOSED 1/2 MILE	CW20-5	2	2	
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A			
RIGHT LANE CLOSED AHEAD	CW20-5R	2	2	
LEFT LANE CLOSED AHEAD	CW20-5L	2	2	
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4	4	
LEFT LANE REDUCTION SYMBOL	CW4-2L	2	2	
ROAD CLOSED	R11-2	1	1	
LANE CLOSED	R11-102	4	4	
DETOUR (RT)	M4-10R			
DETOUR (LT)	M4-10L			
DETOUR MARKER (RT)	M4-9R			
DETOUR MARKER (LT)	M4-9L			
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2			
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1			
YIELD	R1-2			
STOP AHEAD	CW3-1			
YIELD AHEAD	CW3-2			
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L	1	1	
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R	2	2	
REVERSE CURVE LEFT	CW1-4L	2	2	
DO NOT PASS	R4-1	20	20	
TWO WAY TRAFFIC	CW6-3	20	20	
45 MPH ADVISORY	CW13-1			
35 MPH ADVISORY	CW13-1	4	4	
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-	14	14	
DRUMS/TYPE II BARRICADES	-	86	86	
CHANNELIZING DEVICES	-	300	300	
ARROW BOARD	-	3	3	
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-	3	3	
CHANGEABLE MESSAGE BOARD	-	2	2	
SURFACE MOUNT FLEXIBLE DELINEATORS	-	200	200	

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY N EAGLE RIVER TO S BIRCHWOOD SEGMENT QUANTITIES
--	---

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	J11.1	J17-G



LEGEND

	INCIDENT AREA/ CLOSED ROAD
	SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
	SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
	NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
	NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
	TEMPORARY CROSSOVER
	TEMPORARY TRAFFIC CONTROL
	MESSAGE BOARD SIGN (CMS)
	EXISTING SIGNAL
	EXISTING EMERGENCY TURNAROUNDS

- DETOUR CMS MESSAGES**
- (A) GLENN HWY CLOSED AT S BIRCHWOOD/FOLLOW OLD GLENN DETOUR
 - (B) NOT USED
 - (C) NB GLENN HWY CLOSED AT S BIRCHWOOD/FOLLOW OLD GLENN DETOUR
- CROSSOVER CMS MESSAGES**
- (A) GLENN HWY REDUCED TO ONE LANE/FOLLOW DETOUR
 - (B) LEFT LANE CLOSED AHEAD/GLENN HIGHWAY REDUCED TO ONE LANE
 - (C) NOT USED

- GENERAL NOTES**
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
 - LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
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CERT. OF AUTH. NO. AECL 1102

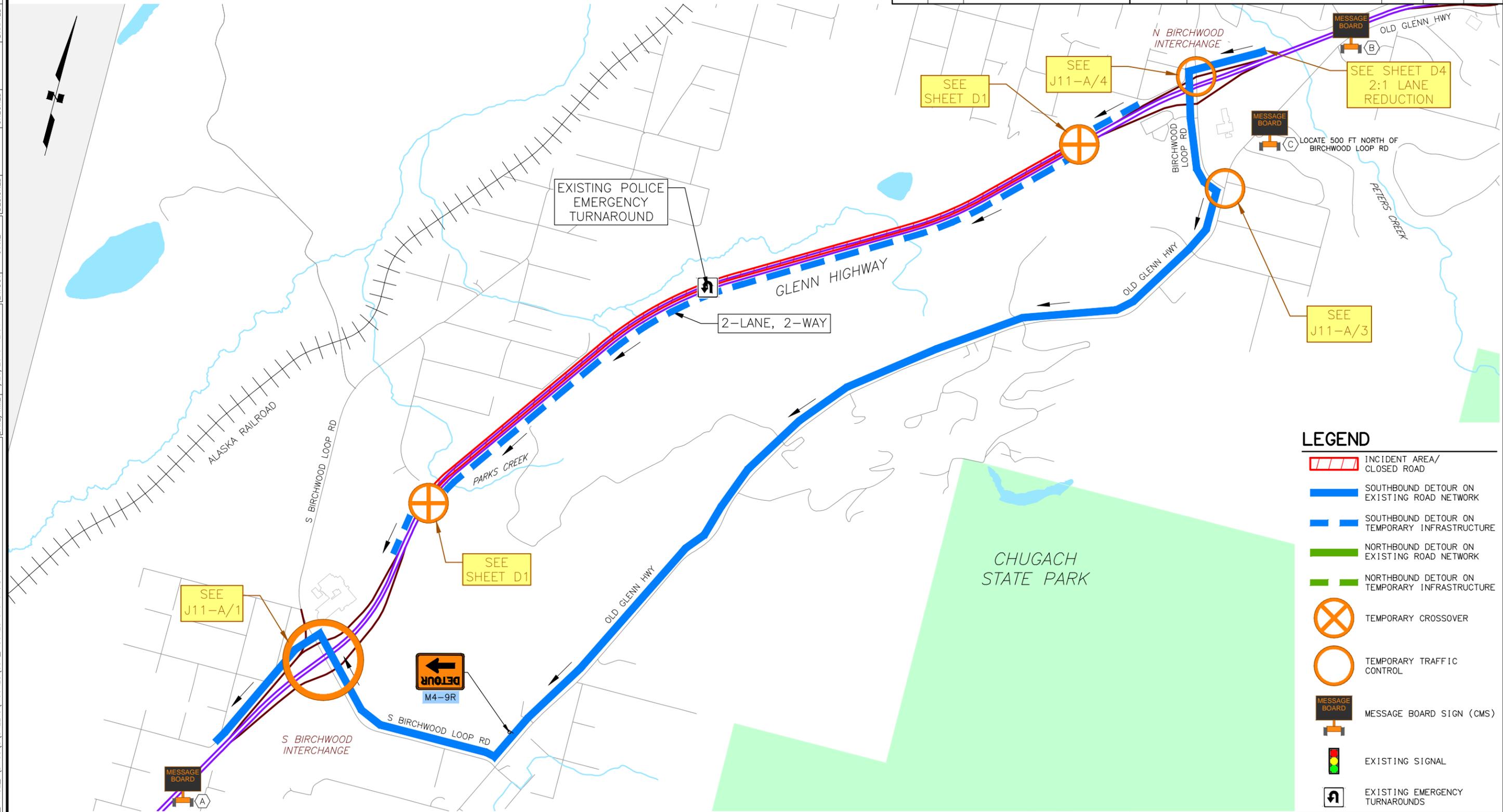
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY
S BIRCHWOOD TO N
BIRCHWOOD INTERCHANGE
NORTHBOUND CLOSURE**

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_FIGURES J10-J13.DWG
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 DESIGNED J11.1
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	J11.2	J17-G

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 DATE/TIME 7/25/2019 12:34 PM
 LAYOUT J11.2
 DESIGNED
 CHECKED
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LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

- DETOUR CMS MESSAGES**
- (A) NOT USED
 - (B) GLENN HWY CLOSED AT N BIRCHWOOD/FOLLOW OLD GLENN DETOUR
 - (C) SB GLENN HWY CLOSED AT N BIRCHWOOD/FOLLOW OLD GLENN DETOUR
- CROSSOVER CMS MESSAGES**
- (A) LEFT LANE CLOSED AHEAD/GLENN HIGHWAY REDUCED TO ONE LANE
 - (B) GLENN HIGHWAY REDUCED TO ONE LANE/FOLLOW DETOUR
 - (C) NOT USED

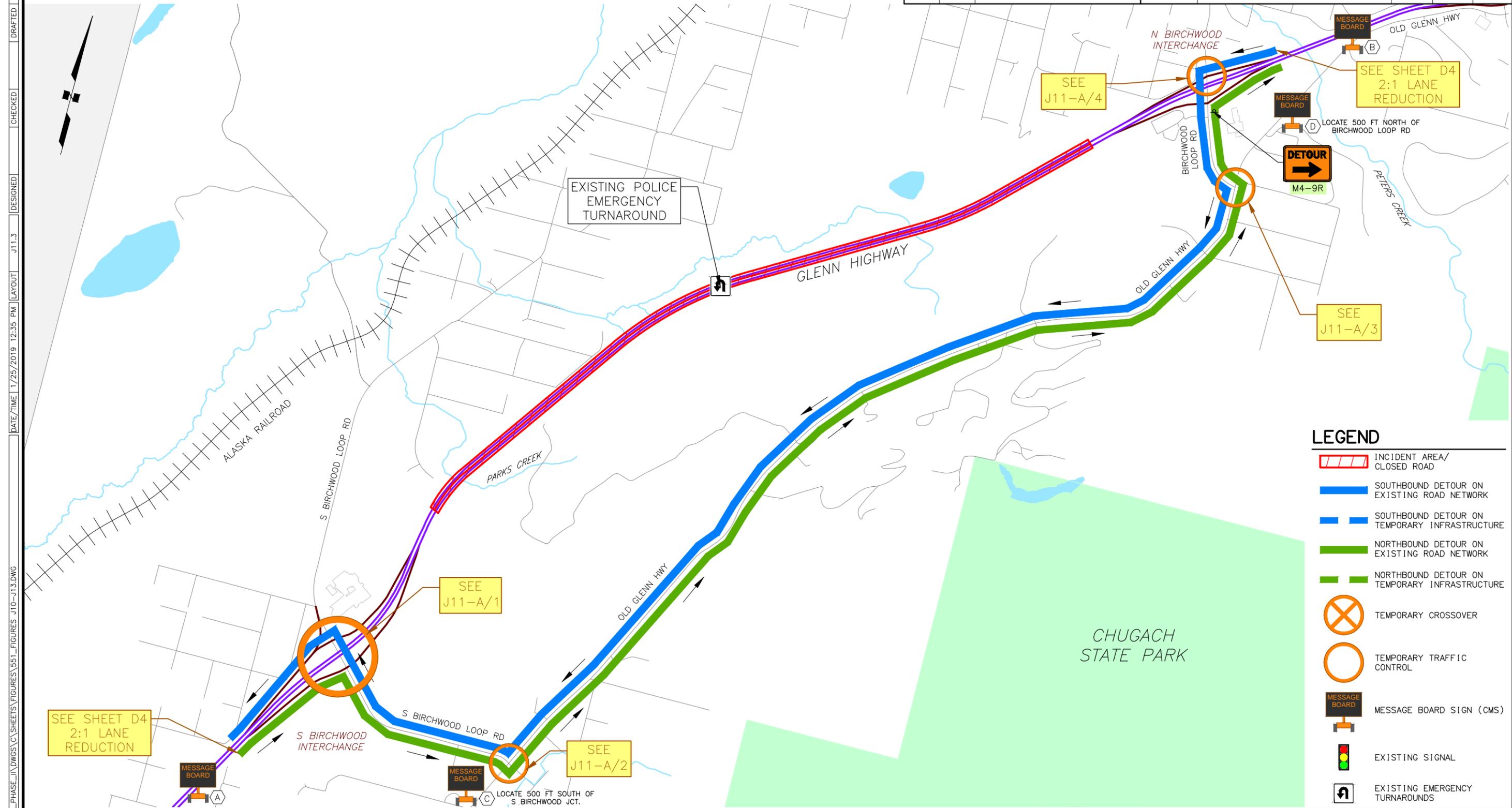
- GENERAL NOTES**
1. ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 2. HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 3. PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
 4. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

PLANS DEVELOPED BY:
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 CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

GLENN HIGHWAY S BIRCHWOOD TO N BIRCHWOOD INTERCHANGE SOUTHBOUND CLOSURE

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	J11.3	J17-G



LEGEND

	INCIDENT AREA/ CLOSED ROAD
	SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
	SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
	NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
	NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
	TEMPORARY CROSSOVER
	TEMPORARY TRAFFIC CONTROL
	MESSAGE BOARD SIGN (CMS)
	EXISTING SIGNAL
	EXISTING EMERGENCY TURNAROUNDS

- #### DETOUR CMS MESSAGES
- (A) GLENN HWY CLOSED AT S BIRCHWOOD/FOLLOW OLD GLENN DETOUR
 - (B) GLENN HWY CLOSED AT N BIRCHWOOD/FOLLOW OLD GLENN DETOUR
 - (C) NB GLENN HWY CLOSED AT S BIRCHWOOD/FOLLOW OLD GLENN DETOUR
 - (D) SB GLENN HWY CLOSED AT N BIRCHWOOD/FOLLOW OLD GLENN DETOUR

- #### GENERAL NOTES
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
 - LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

PLANS DEVELOPED BY:
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ANCHORAGE, ALASKA 99503
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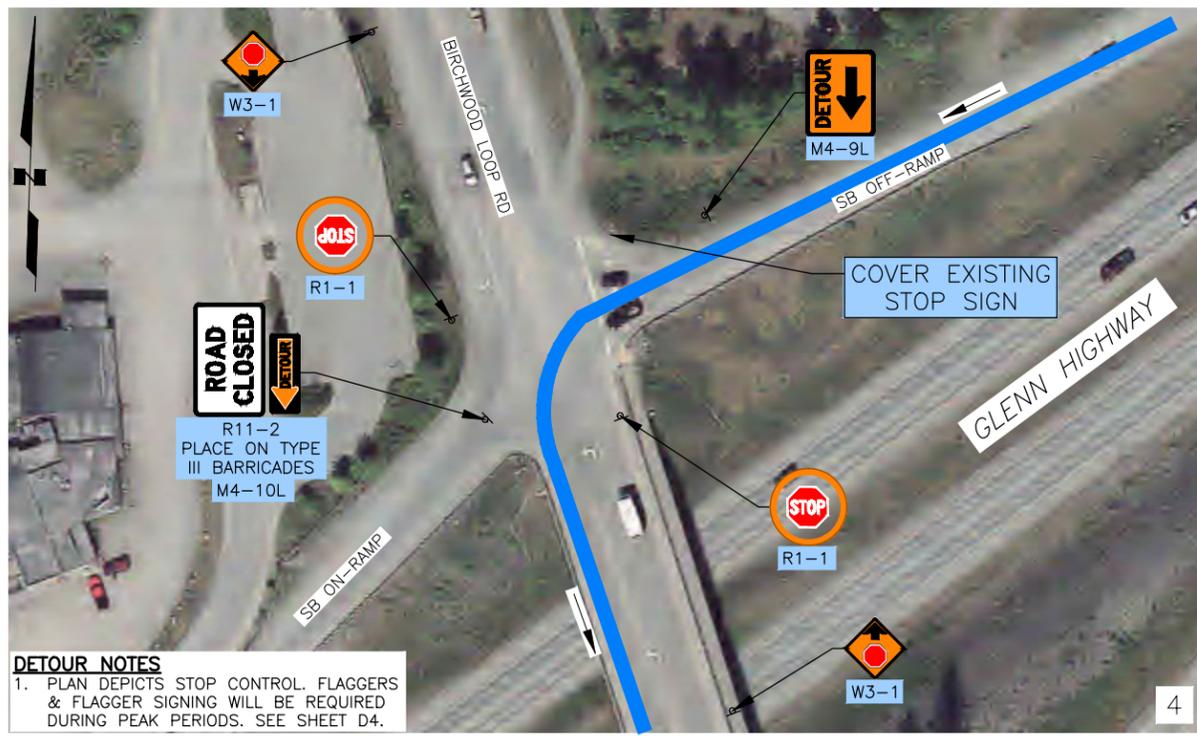
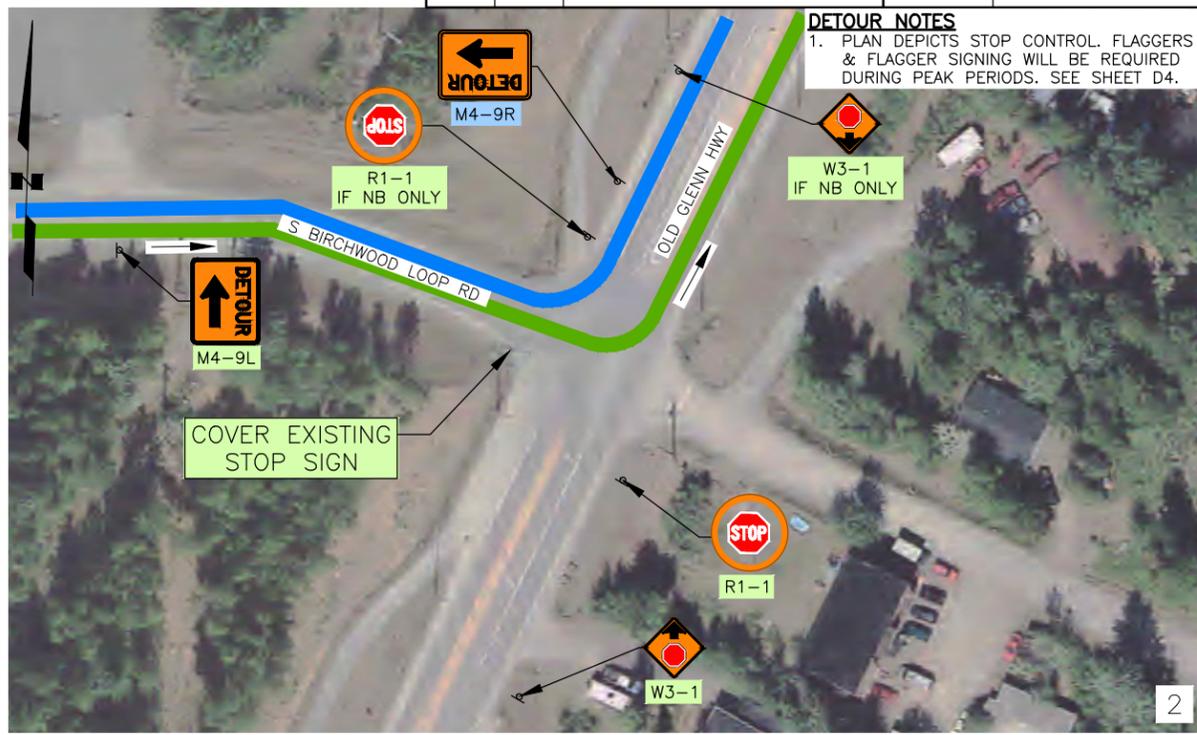
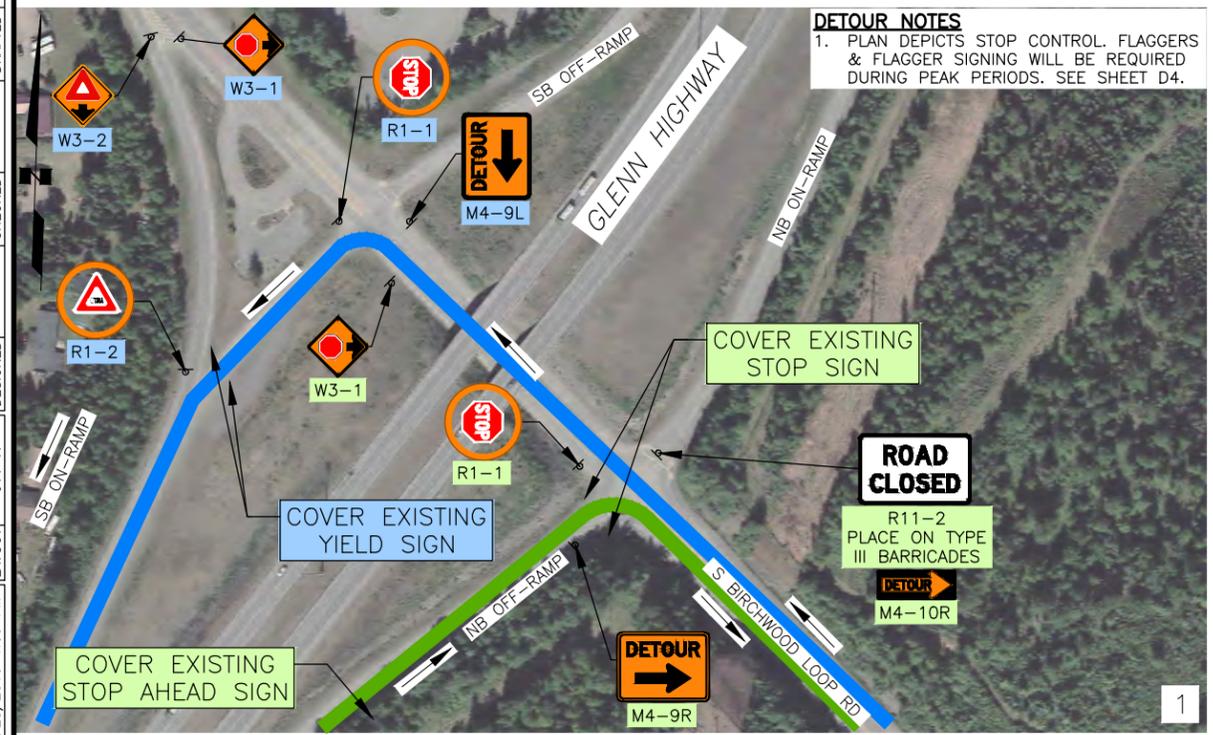
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY S BIRCHWOOD TO N BIRCHWOOD INTERCHANGE FULL CLOSURE

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J11-AJ17-G	

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 DATE/TIME 1/25/2019 1:09 PM
 LAYOUT J11-A
 DESIGNED J11-A
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LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- TEMPORARY STOP SIGN
- TEMPORARY YIELD SIGN
- TEMPORARY TRAFFIC CONTROL SIGNS
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING SIGN TO BE COVERED

- GENERAL NOTES**
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE W3-1 AND W3-2 SIGNS 500 FT IN ADVANCE OF R1-1 AND R1-2 SIGNS.
 - PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 S BIRCHWOOD TO N BIRCHWOOD
 INTERCHANGE
 CLOSURE DETAILS**

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 3909 ARCTIC BLVD, SUITE 400
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 (907) 346-2373
 CERT. OF AUTH. NO. AECL 1102

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_QUANTITIES_J11-J17.DWG
 DATE/TIME 1/25/2019 1:16 PM LAYOUT J11-Q
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J11-Q	17-Q

TRAFFIC CONTROL DEVICE SUMMARY: EXISTING ROAD NETWORK DETOUR

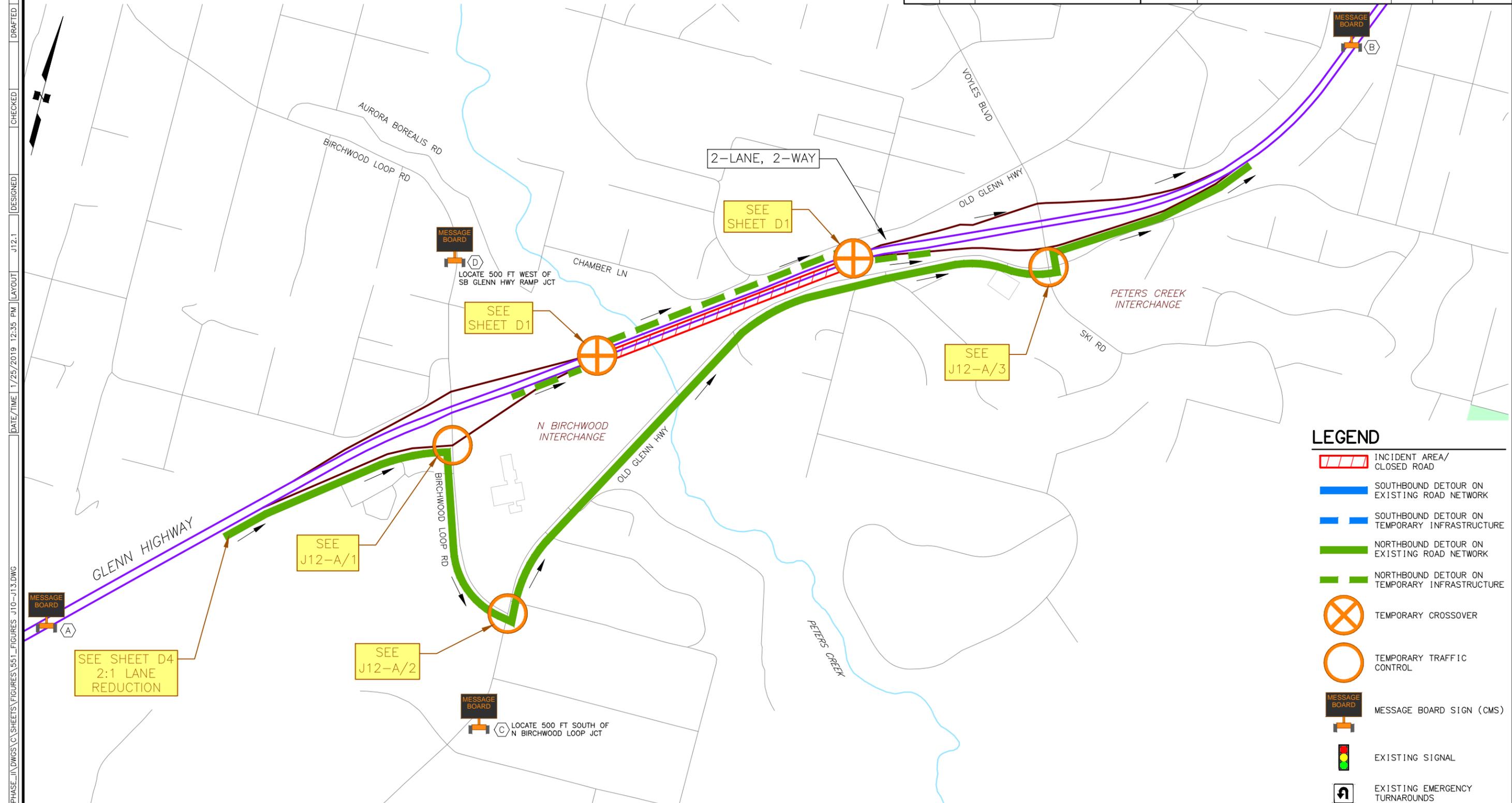
DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J11.1	J11.2	J11.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1			
ROAD WORK 1 MILE	CW20-1	2	2	4
RIGHT LANE CLOSED 1/2 MILE	CW20-5	2	2	4
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A			
RIGHT LANE CLOSED AHEAD	CW20-5R			
LEFT LANE CLOSED AHEAD	CW20-5L			
RIGHT LANE REDUCTION SYMBOL	CW4-2R	2	2	4
LEFT LANE REDUCTION SYMBOL	CW4-2L			
ROAD CLOSED	R11-2	1	1	2
LANE CLOSED	R11-102	4	4	8
DETOUR (RT)	M4-10R	1		1
DETOUR (LT)	M4-10L		1	1
DETOUR MARKER (RT)	M4-9R	2	2	4
DETOUR MARKER (LT)	M4-9L	2	2	4
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2			
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1	4	4	7
YIELD	R1-2		1	1
STOP AHEAD	CW3-1	4	4	7
YIELD AHEAD	CW3-2		1	1
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L			
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R			
REVERSE CURVE LEFT	CW1-4L			
DO NOT PASS	R4-1			
TWO WAY TRAFFIC	CW6-3			
45 MPH ADVISORY	CW13-1			
35 MPH ADVISORY	CW13-1			
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-	5	5	10
DRUMS/TYPE II BARRICADES	-	16	16	32
CHANNELIZING DEVICES	-	100	100	200
ARROW BOARD	-	1	1	2
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-	1	1	2
CHANGEABLE MESSAGE BOARD	-	3	3	4
SURFACE MOUNT FLEXIBLE DELINEATORS	-			

TRAFFIC CONTROL DEVICE SUMMARY: CROSSOVER DETOUR

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J11.1	J11.2	J11.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1	4	4	
ROAD WORK 1 MILE	CW20-1	2	2	
RIGHT LANE CLOSED 1/2 MILE	CW20-5	2	2	
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A			
RIGHT LANE CLOSED AHEAD	CW20-5R	2	2	
LEFT LANE CLOSED AHEAD	CW20-5L	2	2	
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4	4	
LEFT LANE REDUCTION SYMBOL	CW4-2L	2	2	
ROAD CLOSED	R11-2	1	1	
LANE CLOSED	R11-102	4	4	
DETOUR (RT)	M4-10R			
DETOUR (LT)	M4-10L			
DETOUR MARKER (RT)	M4-9R			
DETOUR MARKER (LT)	M4-9L			
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2			
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1			
YIELD	R1-2			
STOP AHEAD	CW3-1			
YIELD AHEAD	CW3-2			
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L	1	1	
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R	2	2	
REVERSE CURVE LEFT	CW1-4L	2	2	
DO NOT PASS	R4-1	20	20	
TWO WAY TRAFFIC	CW6-3	20	20	
45 MPH ADVISORY	CW13-1			
35 MPH ADVISORY	CW13-1	4	4	
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-	14	14	
DRUMS/TYPE II BARRICADES	-	86	86	
CHANNELIZING DEVICES	-	300	300	
ARROW BOARD	-	3	3	
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-	3	3	
CHANGEABLE MESSAGE BOARD	-	2	2	
SURFACE MOUNT FLEXIBLE DELINEATORS	-	200	200	

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY S BIRCHWOOD TO N BIRCHWOOD SEGMENT QUANTITIES
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J12.1	J17-G



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

- DETOUR CMS MESSAGES**
- (A) GLENN HWY CLOSED AT N BIRCHWOOD/FOLLOW OLD GLENN DETOUR
 - (B) NOT USED
 - (C) NB GLENN HWY CLOSED AT N BIRCHWOOD/FOLLOW OLD GLENN DETOUR
 - (D) GLENN HWY CLOSED AT N BIRCHWOOD/FOLLOW OLD GLENN DETOUR

- CROSSOVER CMS MESSAGES**
- (A) GLENN HWY REDUCED TO ONE LANE/FOLLOW DETOUR
 - (B) LEFT LANE CLOSED AHEAD/GLENN HIGHWAY REDUCED TO ONE LANE
 - (C) NOT USED
 - (D) NOT USED

- GENERAL NOTES**
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
 - LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

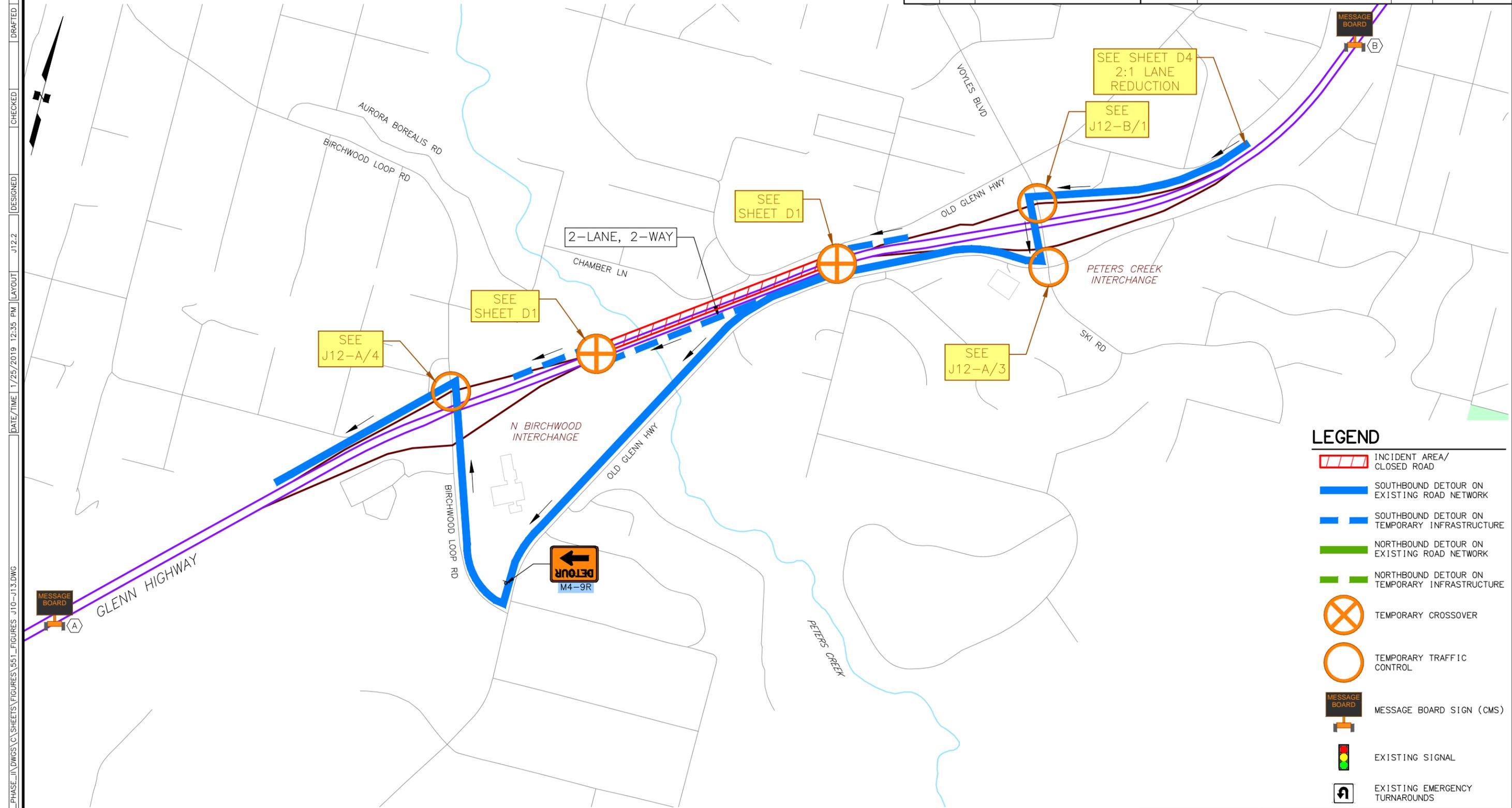
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY N BIRCHWOOD TO PETERS CREEK INTERCHANGE NORTHBOUND CLOSURE

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_1\DWGS\C\DWGS\FIGURES\551_FIGURES_J10-J13.DWG DATE/TIME 1/25/2019 12:35 PM LAYOUT J12.1 DESIGNED J12.1 CHECKED DRAFTED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J12.2	J17-G



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

- DETOUR CMS MESSAGES**
- (A) NOT USED
 - (B) GLENN HWY CLOSED AT PETERS CREEK/FOLLOW OLD GLENN DETOUR
- CROSSOVER CMS MESSAGES**
- (A) LEFT LANE CLOSED AHEAD/GLENN HIGHWAY REDUCED TO ONE LANE
 - (B) GLENN HWY REDUCED TO ONE LANE/FOLLOW DETOUR

- GENERAL NOTES**
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
 - LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

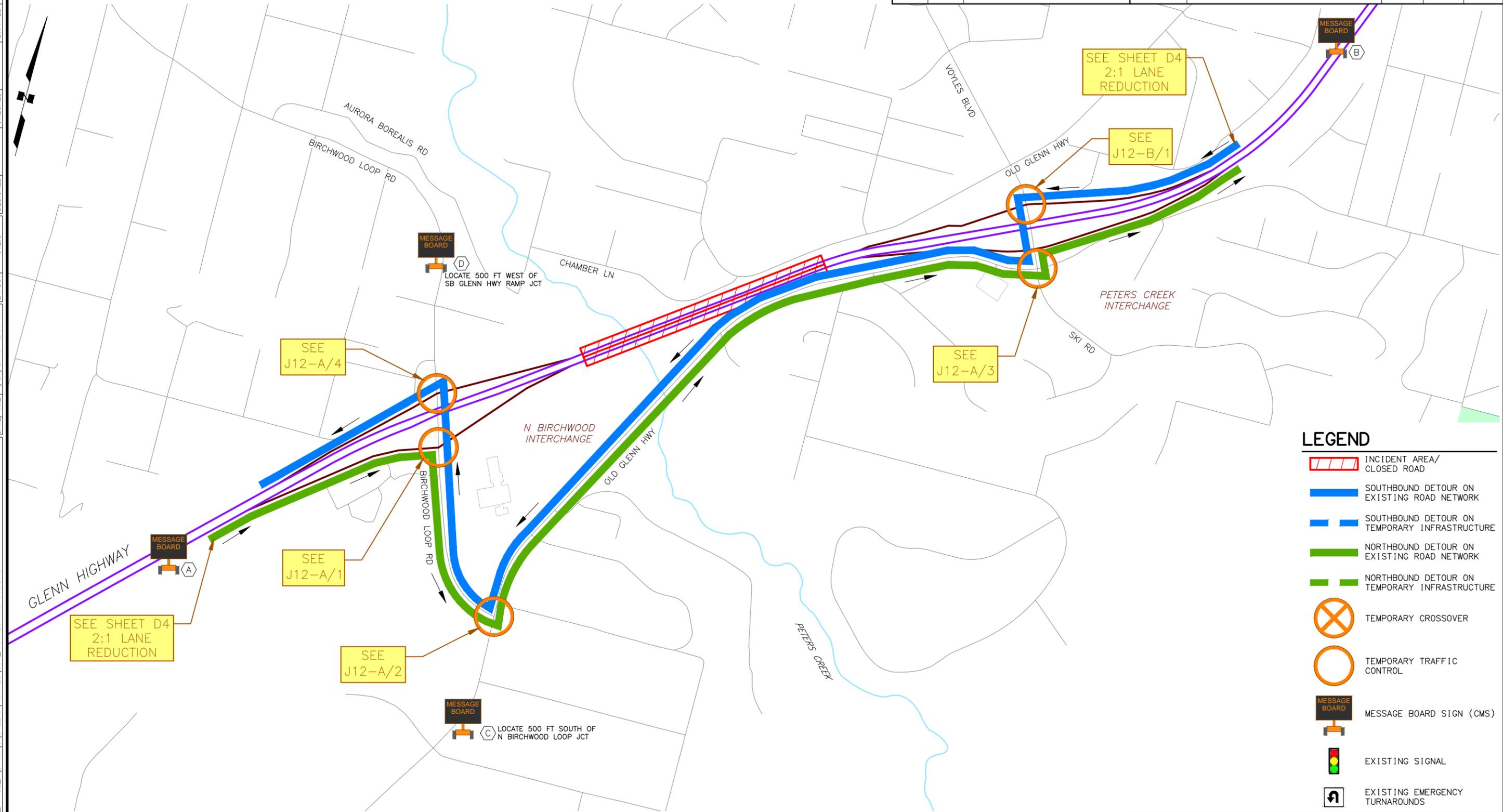
GLENN HIGHWAY N BIRCHWOOD TO PETERS CREEK INTERCHANGE SOUTHBOUND CLOSURE

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J12.3	J17-G

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_1\DWGS\C\DWGS\C\SHEETS\FIGURES\551_FIGURES_J10-J13.DWG
 DATE/TIME 7/25/2019 12:36 PM
 LAYOUT J12.3
 DESIGNED
 CHECKED
 DRAFTED



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

- #### DETOUR CMS MESSAGES
- (A) GLENN HWY CLOSED AT N BIRCHWOOD/FOLLOW OLD GLENN DETOUR
 - (B) GLENN HWY CLOSED AT PETERS CREEK/FOLLOW OLD GLENN DETOUR
 - (C) NB GLENN HWY CLOSED AT N BIRCHWOOD/FOLLOW OLD GLENN DETOUR
 - (D) NB GLENN HWY CLOSED AT N BIRCHWOOD/FOLLOW OLD GLENN DETOUR

- #### GENERAL NOTES
1. ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 2. HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 3. PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
 4. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

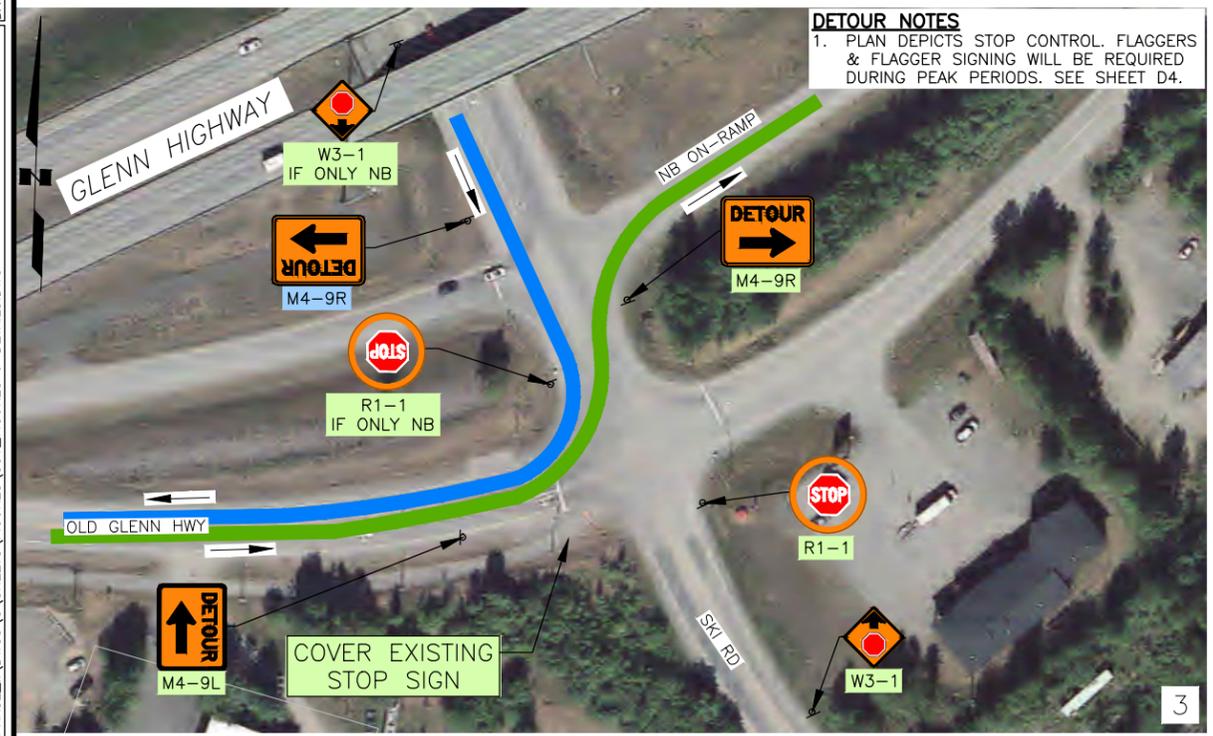
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY N BIRCHWOOD TO PETERS CREEK INTERCHANGE FULL CLOSURE

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 3909 ARCTIC BLVD, SUITE 400
 ANCHORAGE, ALASKA 99503
 (907) 346-2373
 CERT. OF AUTH. NO. AECL 1102

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	J12-AJ17-G	

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LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- TEMPORARY STOP SIGN
- TEMPORARY YIELD SIGN
- TEMPORARY TRAFFIC CONTROL SIGNS
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING SIGN TO BE COVERED

- GENERAL NOTES**
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE W3-1 SIGNS 500 FT IN ADVANCE OF R1-1 SIGNS.
 - PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 NORTH BIRCHWOOD TO SOUTH
 PETERS CREEK INTERCHANGE
 CLOSURE DETAILS**

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 3909 ARCTIC BLVD, SUITE 400
 ANCHORAGE, ALASKA 99503
 (907) 346-2373
 CERT. OF AUTH. NO. AECL 1102

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J12-BU17-G	

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LEGEND

-  INCIDENT AREA/ CLOSED ROAD
-  SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
-  NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
-  TEMPORARY STOP SIGN
-  TEMPORARY YIELD SIGN
-  TEMPORARY TRAFFIC CONTROL SIGNS
-  MESSAGE BOARD SIGN (CMS)
-  EXISTING SIGNAL
-  EXISTING SIGN TO BE COVERED

GENERAL NOTES

1. ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
2. HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
3. PLACE W3-1 SIGNS 500 FT IN ADVANCE OF R1-1 SIGNS.
4. PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 3909 ARCTIC BLVD, SUITE 400
 ANCHORAGE, ALASKA 99503
 (907) 346-2373
 CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
**GLENN HIGHWAY
 NORTH BIRCHWOOD TO SOUTH
 PETERS CREEK INTERCHANGE
 CLOSURE DETAILS**

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_QUANTITIES_J11-J17.DWG
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J12-Q	17-Q

TRAFFIC CONTROL DEVICE SUMMARY: EXISTING ROAD NETWORK DETOUR

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J12.1	J12.2	J12.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1			
ROAD WORK 1 MILE	CW20-1	2	2	4
RIGHT LANE CLOSED 1/2 MILE	CW20-5	2	2	4
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A			
RIGHT LANE CLOSED AHEAD	CW20-5R			
LEFT LANE CLOSED AHEAD	CW20-5L			
RIGHT LANE REDUCTION SYMBOL	CW4-2R	2	2	4
LEFT LANE REDUCTION SYMBOL	CW4-2L			
ROAD CLOSED	R11-2	1	1	2
LANE CLOSED	R11-102	4	4	8
DETOUR (RT)	M4-10R	1		1
DETOUR (LT)	M4-10L		1	1
DETOUR MARKER (RT)	M4-9R	2	2	4
DETOUR MARKER (LT)	M4-9L	2	2	4
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2			
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1	5	3	7
YIELD	R1-2			
STOP AHEAD	CW3-1	5	3	7
YIELD AHEAD	CW3-2			
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L			
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R			
REVERSE CURVE LEFT	CW1-4L			
DO NOT PASS	R4-1			
TWO WAY TRAFFIC	CW6-3			
45 MPH ADVISORY	CW13-1			
35 MPH ADVISORY	CW13-1			
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-	5	5	10
DRUMS/TYPE II BARRICADES	-	16	16	32
CHANNELIZING DEVICES	-	100	100	200
ARROW BOARD	-	1	1	2
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-	1	1	2
CHANGEABLE MESSAGE BOARD	-	4	2	4
SURFACE MOUNT FLEXIBLE DELINEATORS	-			

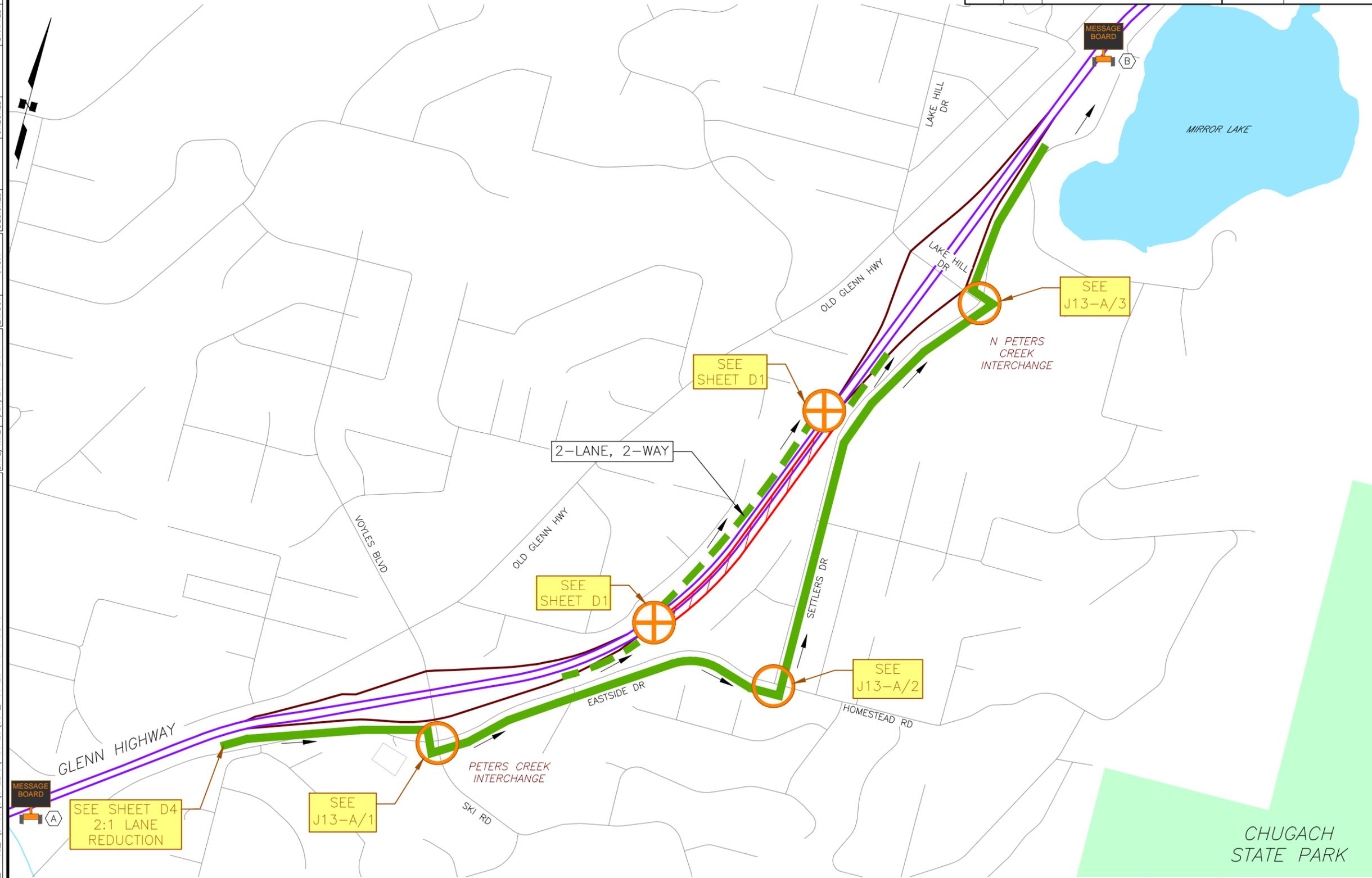
TRAFFIC CONTROL DEVICE SUMMARY: CROSSOVER DETOUR

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J12.1	J12.2	J12.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1	4	4	
ROAD WORK 1 MILE	CW20-1	2	2	
RIGHT LANE CLOSED 1/2 MILE	CW20-5	2	2	
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A			
RIGHT LANE CLOSED AHEAD	CW20-5R	2	2	
LEFT LANE CLOSED AHEAD	CW20-5L	2	2	
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4	4	
LEFT LANE REDUCTION SYMBOL	CW4-2L	2	2	
ROAD CLOSED	R11-2	1	1	
LANE CLOSED	R11-102	4	4	
DETOUR (RT)	M4-10R			
DETOUR (LT)	M4-10L			
DETOUR MARKER (RT)	M4-9R			
DETOUR MARKER (LT)	M4-9L			
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2			
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1			
YIELD	R1-2			
STOP AHEAD	CW3-1			
YIELD AHEAD	CW3-2			
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L	1	1	
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R	2	2	
REVERSE CURVE LEFT	CW1-4L	2	2	
DO NOT PASS	R4-1	20	20	
TWO WAY TRAFFIC	CW6-3	20	20	
45 MPH ADVISORY	CW13-1			
35 MPH ADVISORY	CW13-1	4	4	
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-	14	14	
DRUMS/TYPE II BARRICADES	-	86	86	
CHANNELIZING DEVICES	-	300	300	
ARROW BOARD	-	3	3	
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-	3	3	
CHANGEABLE MESSAGE BOARD	-	2	2	
SURFACE MOUNT FLEXIBLE DELINEATORS	-	200	200	

<p>PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102</p>	<p>STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES</p> <p>GLENN HIGHWAY N BIRCHWOOD TO PETERS CREEK SEGMENT QUANTITIES</p>
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	J13.1	J17-G

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_III\DWGS\C\FIGURES\551_FIGURES\J10-J13.DWG
 DATE/TIME 7/25/2019 12:36 PM
 LAYOUT J13.1
 DESIGNED
 CHECKED
 DRAFTED



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

- DETOUR CMS MESSAGES**
- (A) GLENN HWY CLOSED AT PETERS CREEK/FOLLOW DETOUR ROUTE
 - (B) NOT USED
- CROSSOVER CMS MESSAGES**
- (A) GLENN HWY REDUCED TO ONE LANE/FOLLOW DETOUR
 - (B) LEFT LANE CLOSED AHEAD/GLENN HIGHWAY REDUCED TO ONE LANE

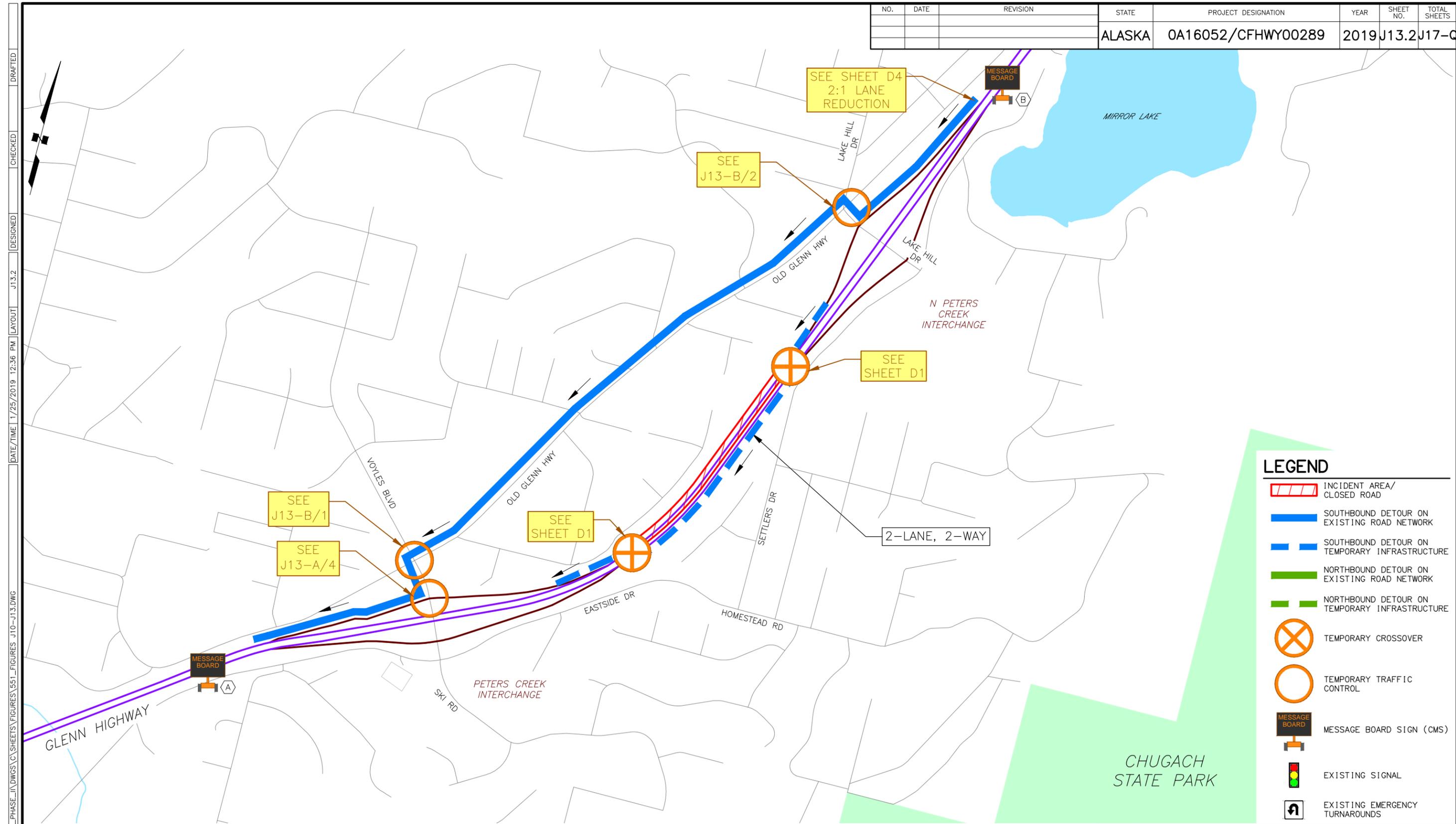
- GENERAL NOTES**
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
 - LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

PLANS DEVELOPED BY:
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STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

GLENN HIGHWAY PETERS CREEK TO N PETERS CREEK INTERCHANGE NORTHBOUND CLOSURE

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	J13.2	J17-G



- DETOUR CMS MESSAGES**
- (A) NOT USED
 - (B) GLENN HWY CLOSED AT N PETERS CREEK/FOLLOW OLD GLENN DETOUR
- CROSSOVER CMS MESSAGES**
- (A) LEFT LANE CLOSED AHEAD/GLENN HIGHWAY REDUCED TO ONE LANE
 - (B) GLENN HWY REDUCED TO ONE LANE/FOLLOW DETOUR

- GENERAL NOTES**
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
 - LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

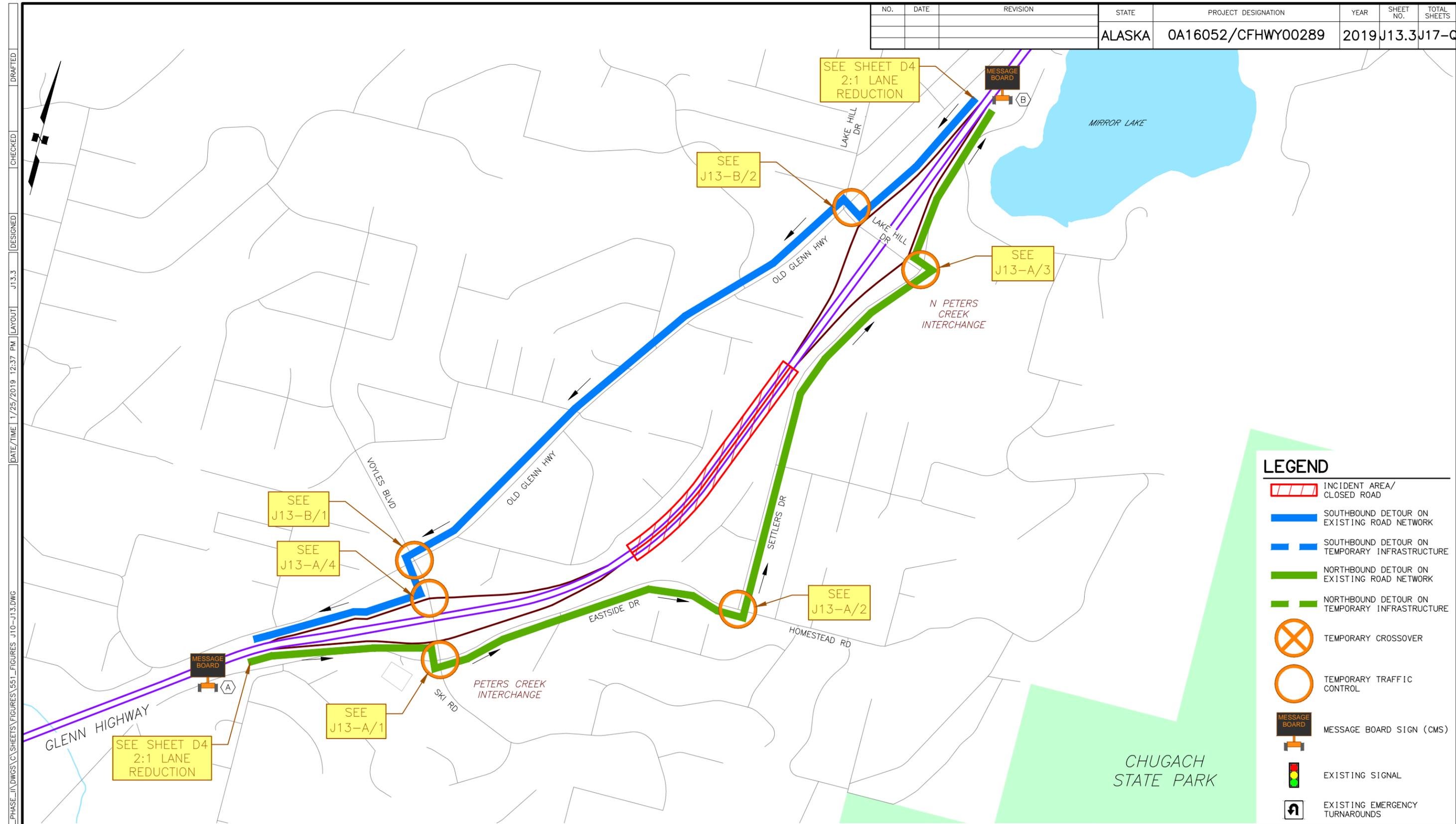
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 ANCHORAGE, ALASKA 99503
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STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 PETERS CREEK TO N
 PETERS CREEK INTERCHANGE
 SOUTHBOUND CLOSURE**

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	J13.3	J17-G



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

DETOUR CMS MESSAGES

(A) GLENN HWY CLOSED AT PETERS CREEK/FOLLOW DETOUR ROUTE
(B) GLENN HWY CLOSED AT N PETERS CREEK/FOLLOW DETOUR ROUTE

- GENERAL NOTES**
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
 - LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
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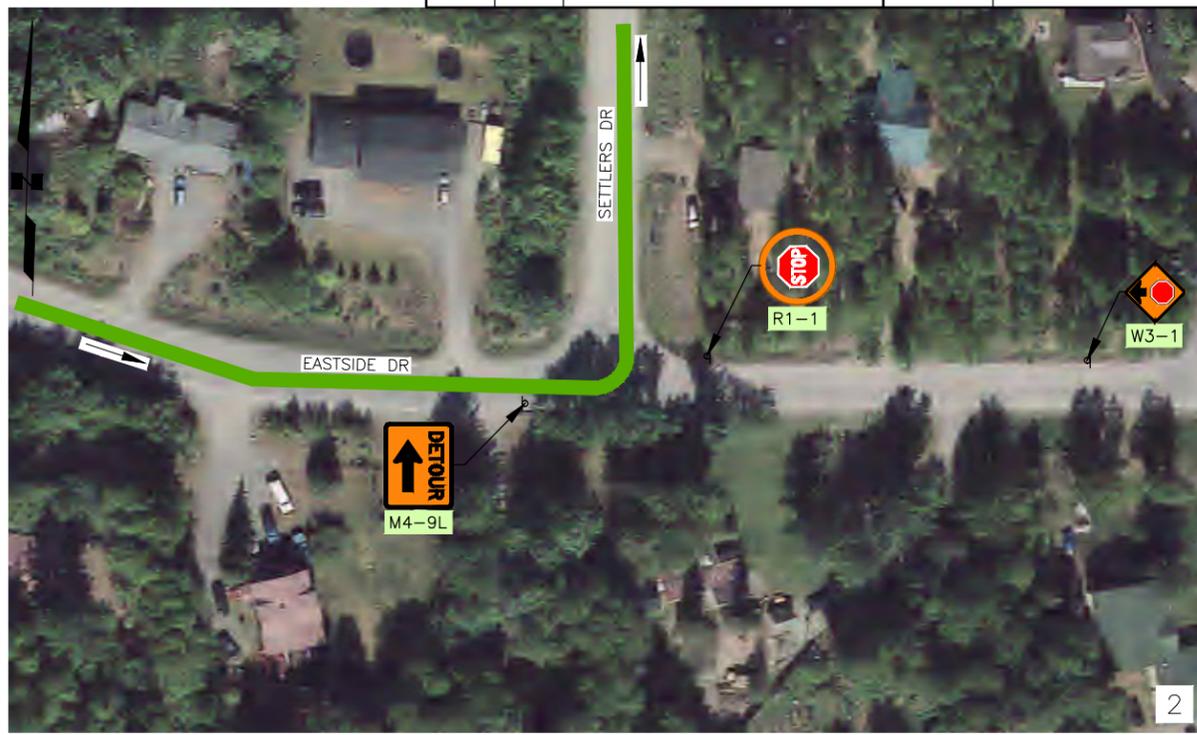
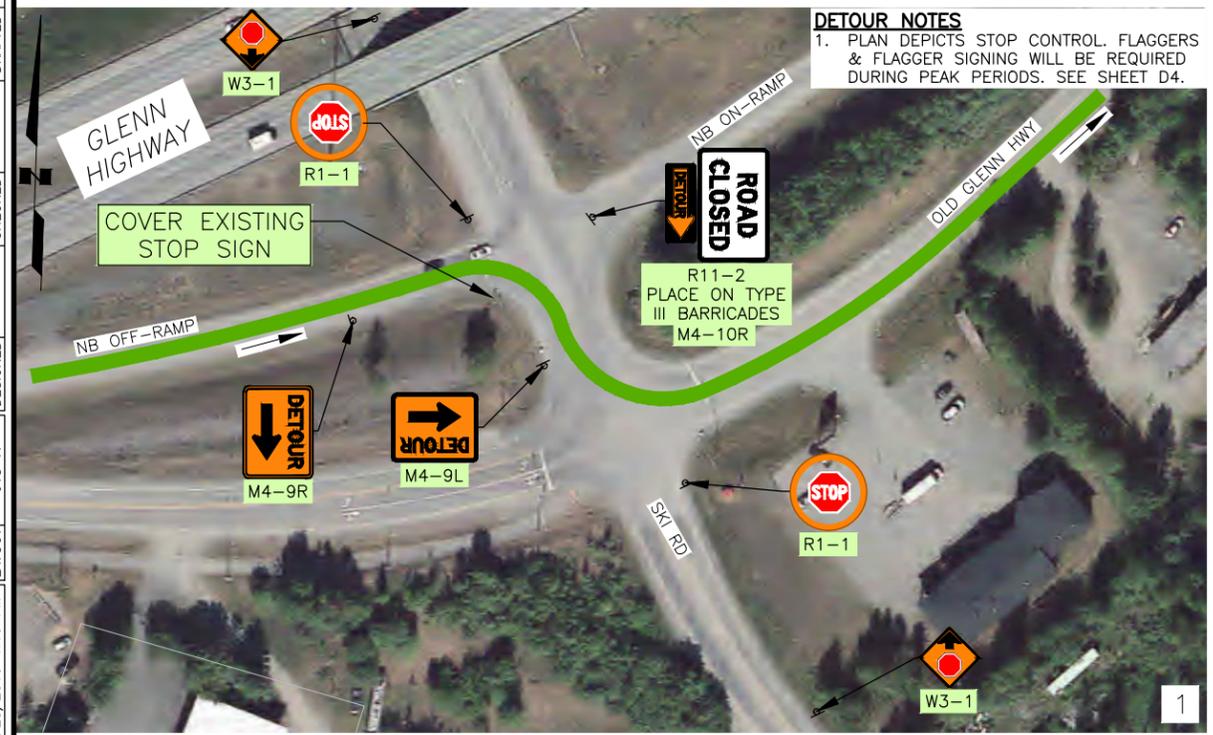
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY
PETERS CREEK TO N
PETERS CREEK INTERCHANGE
FULL CLOSURE**

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	J13-AJ17-Q	

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 DATE/TIME 1/25/2019 1:10 PM
 LAYOUT J13-A
 DESIGNED
 CHECKED
 DRAFTED



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- TEMPORARY STOP SIGN
- TEMPORARY YIELD SIGN
- TEMPORARY TRAFFIC CONTROL SIGNS
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- COVER EXISTING EXISTING SIGN TO BE COVERED

- GENERAL NOTES**
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE W3-1 SIGNS 500 FT IN ADVANCE OF R1-1 SIGNS.
 - PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.

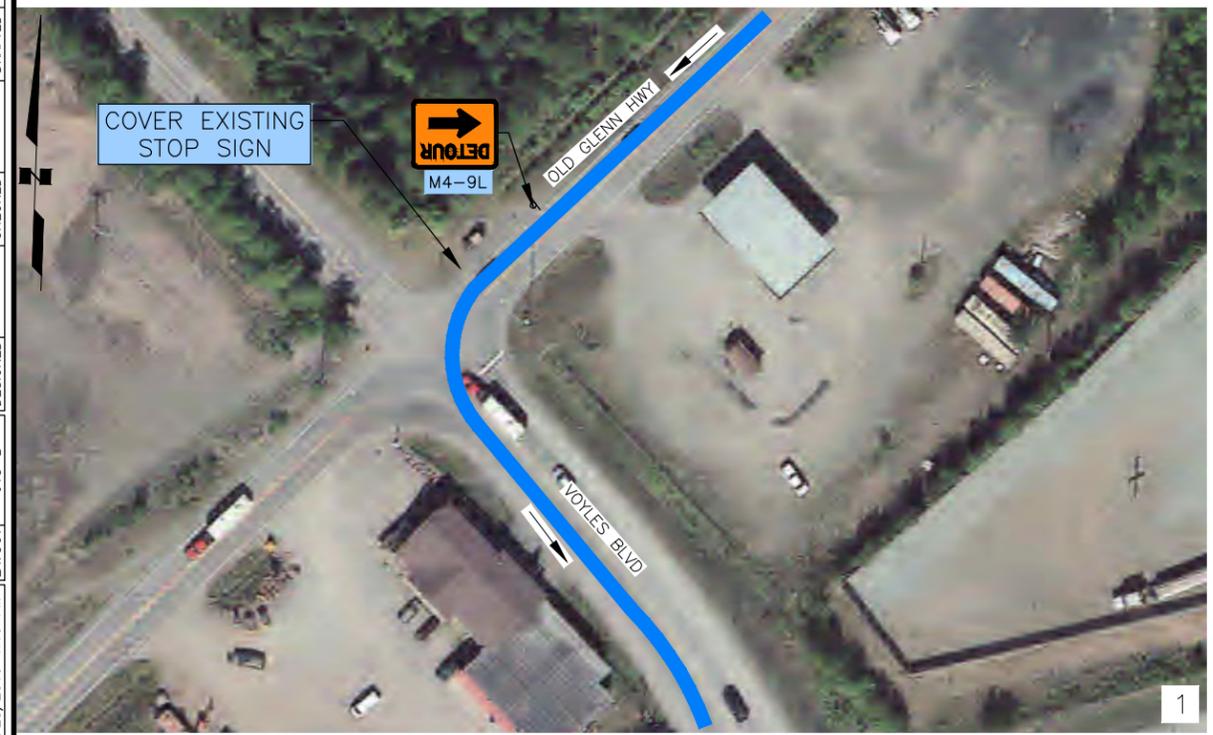
STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 PETERS CREEK TO N PETERS
 CREEK INTERCHANGE
 CLOSURE DETAILS**

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 3909 ARCTIC BLVD, SUITE 400
 ANCHORAGE, ALASKA 99503
 (907) 346-2373
 CERT. OF AUTH. NO. AECL 1102

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J13-BU17-G	

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DETOUR NOTES
 1. PLAN DEPICTS STOP CONTROL. FLAGGERS & FLAGGER SIGNING WILL BE REQUIRED DURING PEAK PERIODS. SEE SHEET D4.

LEGEND

-  INCIDENT AREA/ CLOSED ROAD
-  SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
-  NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
-  TEMPORARY STOP SIGN
-  TEMPORARY YIELD SIGN
-  TEMPORARY TRAFFIC CONTROL SIGNS
-  MESSAGE BOARD SIGN (CMS)
-  EXISTING SIGNAL
-  EXISTING SIGN TO BE COVERED

- GENERAL NOTES**
1. ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 2. HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 3. PLACE W3-1 SIGNS 500 FT IN ADVANCE OF R1-1 SIGNS.
 4. PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 PETERS CREEK TO N PETERS
 CREEK INTERCHANGE
 CLOSURE DETAILS**

PLANS DEVELOPED BY:
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J13-Q	17-Q

TRAFFIC CONTROL DEVICE SUMMARY: EXISTING ROAD NETWORK DETOUR

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J13.1	J13.2	J13.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1			
ROAD WORK 1 MILE	CW20-1	2	2	4
RIGHT LANE CLOSED 1/2 MILE	CW20-5	2	2	4
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A			
RIGHT LANE CLOSED AHEAD	CW20-5R			
LEFT LANE CLOSED AHEAD	CW20-5L			
RIGHT LANE REDUCTION SYMBOL	CW4-2R	2	2	4
LEFT LANE REDUCTION SYMBOL	CW4-2L			
ROAD CLOSED	R11-2	1	1	2
LANE CLOSED	R11-102	4	4	8
DETOUR (RT)	M4-10R	1	1	2
DETOUR (LT)	M4-10L			
DETOUR MARKER (RT)	M4-9R	2	2	4
DETOUR MARKER (LT)	M4-9L	3	2	5
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2			
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1	5	1	6
YIELD	R1-2			
STOP AHEAD	CW3-1	5	1	6
YIELD AHEAD	CW3-2			
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L			
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R			
REVERSE CURVE LEFT	CW1-4L			
DO NOT PASS	R4-1			
TWO WAY TRAFFIC	CW6-3			
45 MPH ADVISORY	CW13-1			
35 MPH ADVISORY	CW13-1			
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-	5	5	10
DRUMS/TYPE II BARRICADES	-	16	16	32
CHANNELIZING DEVICES	-	100	100	200
ARROW BOARD	-	1	1	2
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-	1	1	2
CHANGEABLE MESSAGE BOARD	-	2	2	2
SURFACE MOUNT FLEXIBLE DELINEATORS	-			

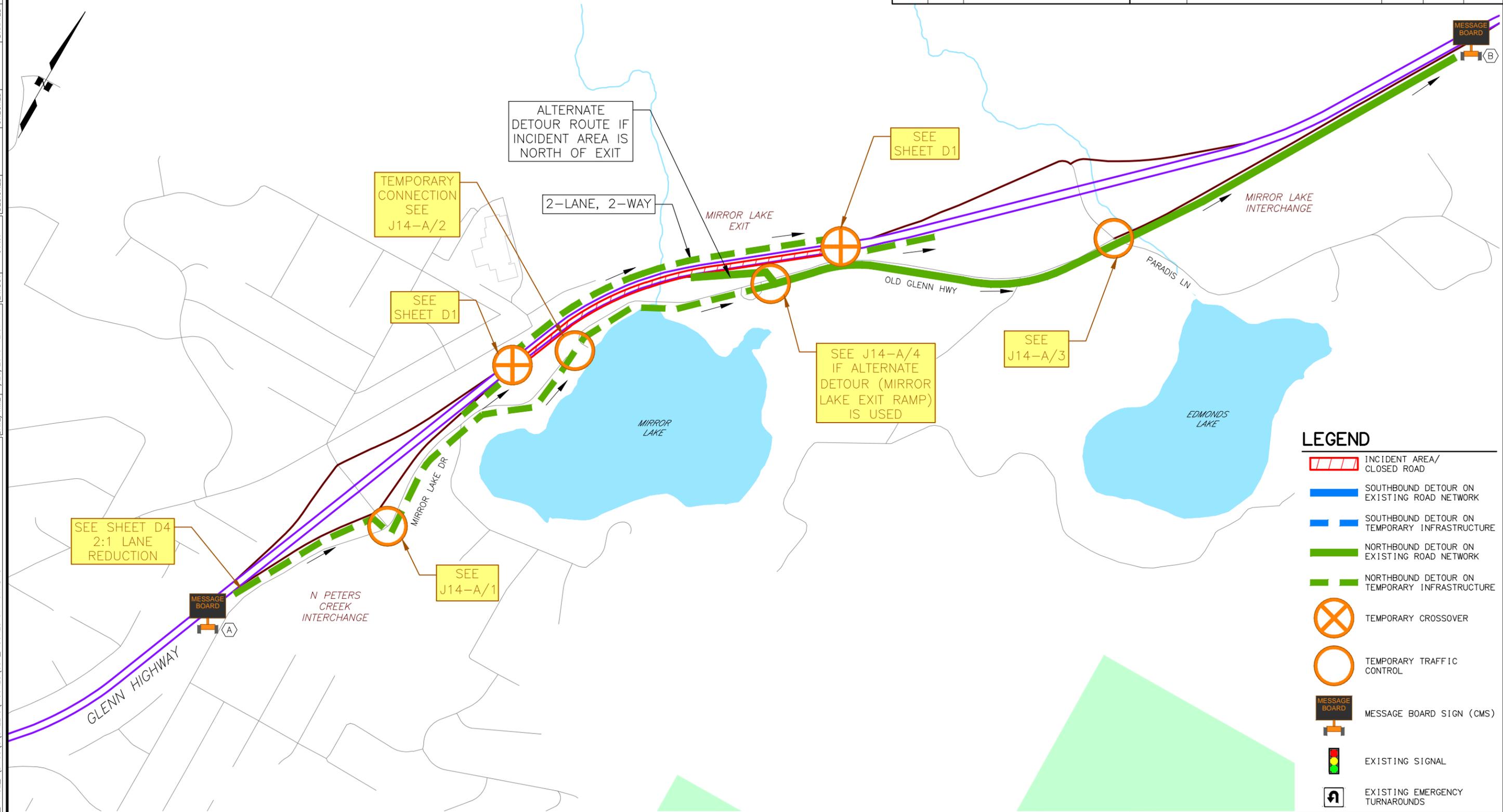
TRAFFIC CONTROL DEVICE SUMMARY: CROSSOVER DETOUR

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J13.1	J13.2	J13.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1	4	4	
ROAD WORK 1 MILE	CW20-1	2	2	
RIGHT LANE CLOSED 1/2 MILE	CW20-5	2	2	
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A			
RIGHT LANE CLOSED AHEAD	CW20-5R	2	2	
LEFT LANE CLOSED AHEAD	CW20-5L	2	2	
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4	4	
LEFT LANE REDUCTION SYMBOL	CW4-2L	2	2	
ROAD CLOSED	R11-2	1	1	
LANE CLOSED	R11-102	4	4	
DETOUR (RT)	M4-10R			
DETOUR (LT)	M4-10L			
DETOUR MARKER (RT)	M4-9R			
DETOUR MARKER (LT)	M4-9L			
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2			
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1			
YIELD	R1-2			
STOP AHEAD	CW3-1			
YIELD AHEAD	CW3-2			
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L	1	1	
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R	2	2	
REVERSE CURVE LEFT	CW1-4L	2	2	
DO NOT PASS	R4-1	20	20	
TWO WAY TRAFFIC	CW6-3	20	20	
45 MPH ADVISORY	CW13-1			
35 MPH ADVISORY	CW13-1	4	4	
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-	14	14	
DRUMS/TYPE II BARRICADES	-	86	86	
CHANNELIZING DEVICES	-	300	300	
ARROW BOARD	-	3	3	
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-	3	3	
CHANGEABLE MESSAGE BOARD	-	2	2	
SURFACE MOUNT FLEXIBLE DELINEATORS	-	200	200	

<p>PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102</p>	<p>STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES</p> <p>GLENN HIGHWAY PETERS CREEK TO N PETERS CREEK SEGMENT QUANTITIES</p>
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J14.1	J17-G

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_FIGURES J14-J17.DWG
 DATE/TIME 7/25/2019 12:37 PM
 LAYOUT J14.1
 DESIGNED
 CHECKED
 DRAFTED



- DETOUR CMS MESSAGES**
- (A) GLENN HWY CLOSED AT N PETERS CREEK/FOLLOW OLD GLENN HWY DETOUR
 - (B) NOT USED
- CROSSOVER CMS MESSAGES**
- (A) GLENN HWY REDUCED TO ONE LANE/FOLLOW DETOUR
 - (B) LEFT LANE CLOSED AHEAD/GLENN HIGHWAY REDUCED TO ONE LANE

DETOUR NOTES
 1. ALL DETOURS REQUIRE TEMPORARY INFRASTRUCTURE.

- GENERAL NOTES**
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

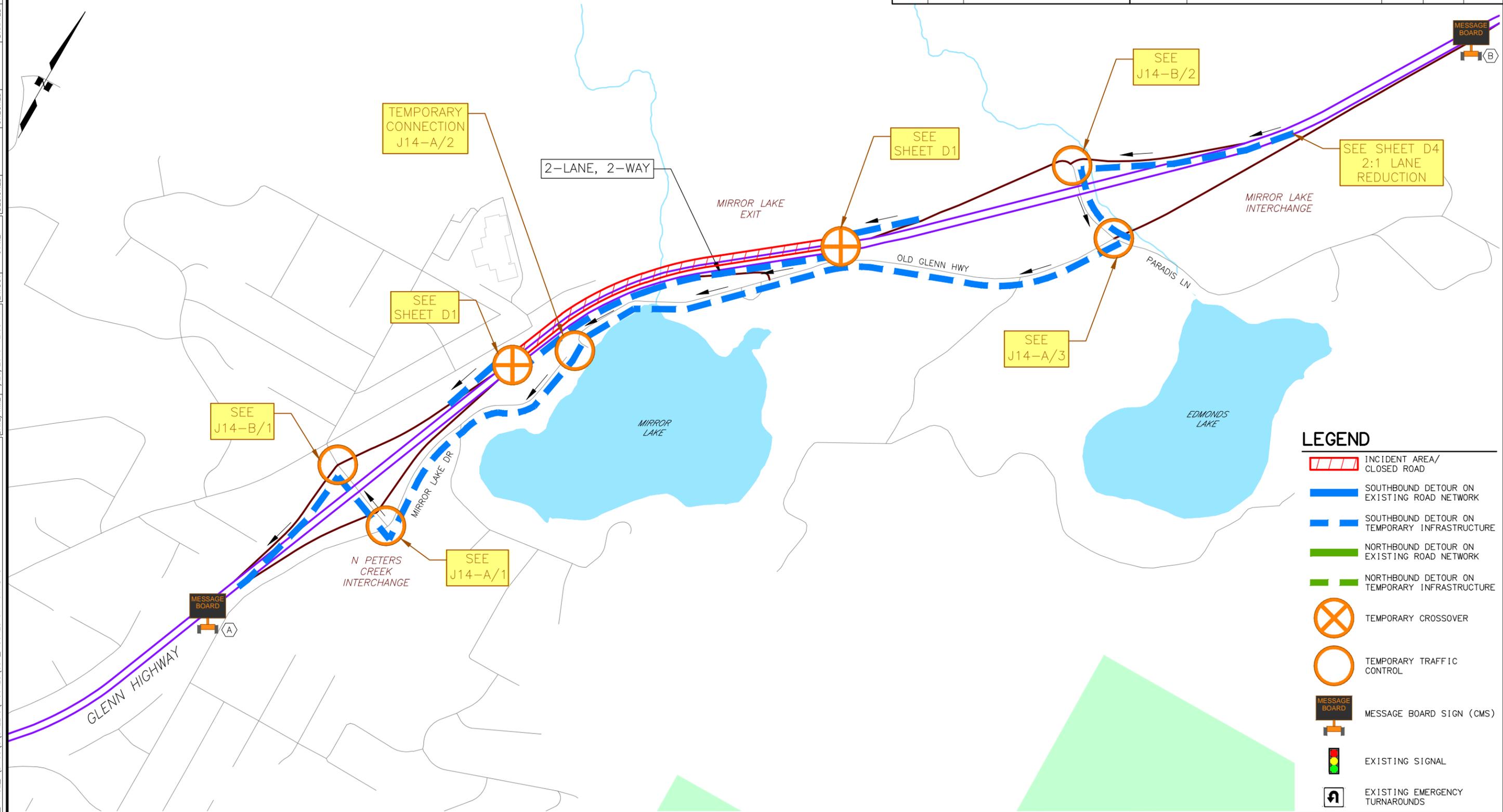
PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 3909 ARCTIC BLVD, SUITE 400
 ANCHORAGE, ALASKA 99503
 (907) 346-2373
 CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 N PETERS CREEK TO
 MIRROR LAKE INTERCHANGE
 NORTHBOUND CLOSURE**

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J14.2	J17-G

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\DWGS\C\SHEETS\FIGURES\551_FIGURES J14-J17.DWG
 DATE/TIME 7/25/2019 12:38 PM
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LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

- DETOUR CMS MESSAGES**
- (A) NOT USED
 - (B) GLENN HWY CLOSED AT MIRROR LAKE/FOLLOW OLD GLENN DETOUR
- CROSSOVER CMS MESSAGES**
- (A) LEFT LANE CLOSED AHEAD/GLENN HIGHWAY REDUCED TO ONE LANE
 - (B) GLENN HWY REDUCED TO ONE LANE/FOLLOW DETOUR

DETOUR NOTES
 1. ALL DETOURS REQUIRE TEMPORARY INFRASTRUCTURE.

- GENERAL NOTES**
1. ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 2. HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 3. PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
 4. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

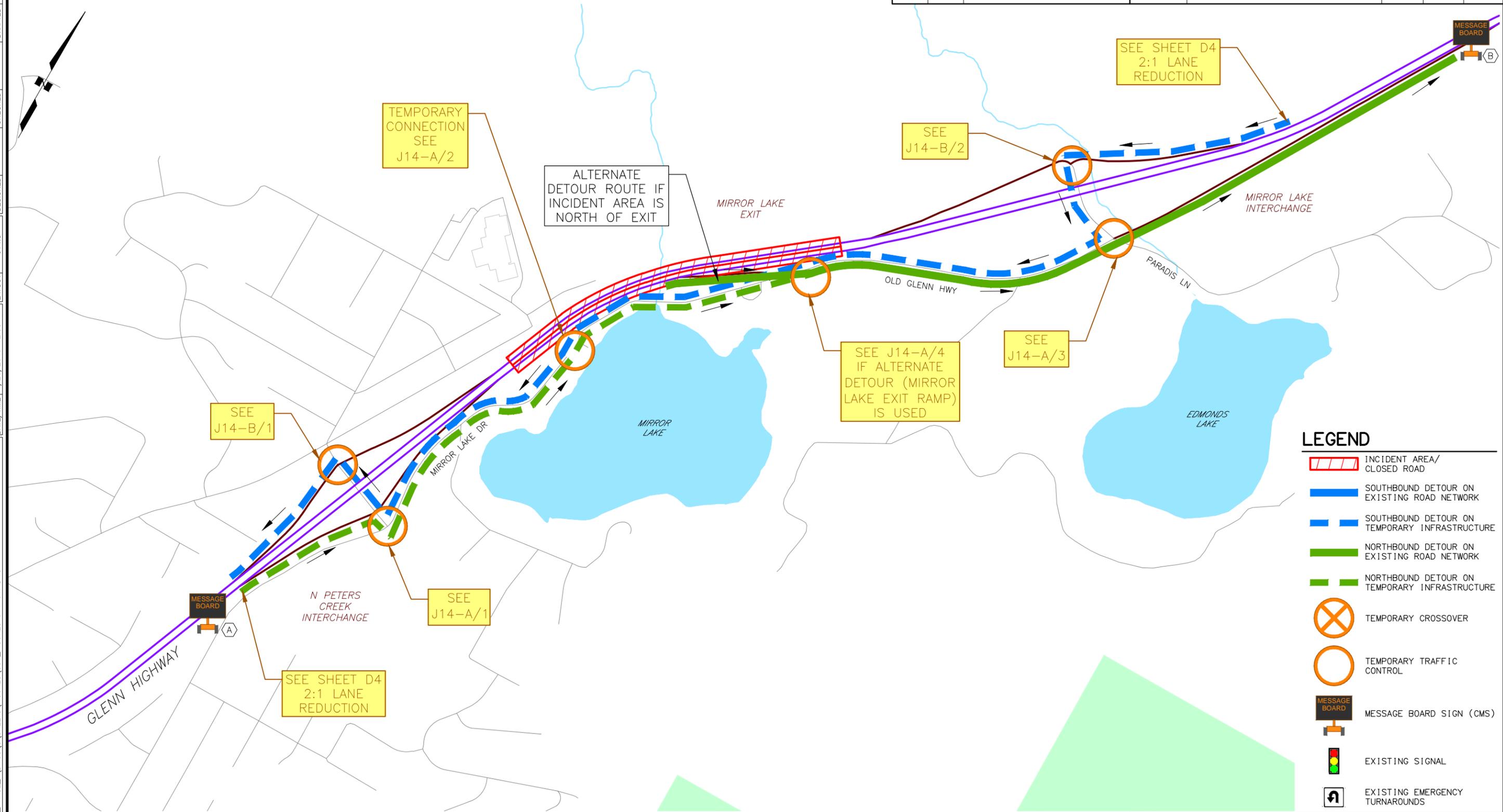
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GLENN HIGHWAY N PETERS CREEK TO MIRROR LAKE INTERCHANGE SOUTHBOUND CLOSURE

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J14.3	J17-G

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LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

- CROSSOVER CMS MESSAGES**
- (A) GLENN HWY CLOSED AT N PETERS CREEK/FOLLOW OLD GLENN DETOUR
 - (B) GLENN HWY CLOSED AT MIRROR LAKE/FOLLOW OLD GLENN DETOUR

DETOUR NOTES
 1. ALL DETOURS REQUIRE TEMPORARY INFRASTRUCTURE.

- GENERAL NOTES**
1. ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 2. HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 3. PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
 4. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

GLENN HIGHWAY N PETERS CREEK TO MIRROR LAKE INTERCHANGE FULL CLOSURE

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 3909 ARCTIC BLVD, SUITE 400
 ANCHORAGE, ALASKA 99503
 (907) 346-2373
 CERT. OF AUTH. NO. AECL 1102

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J14-AJ17-G	

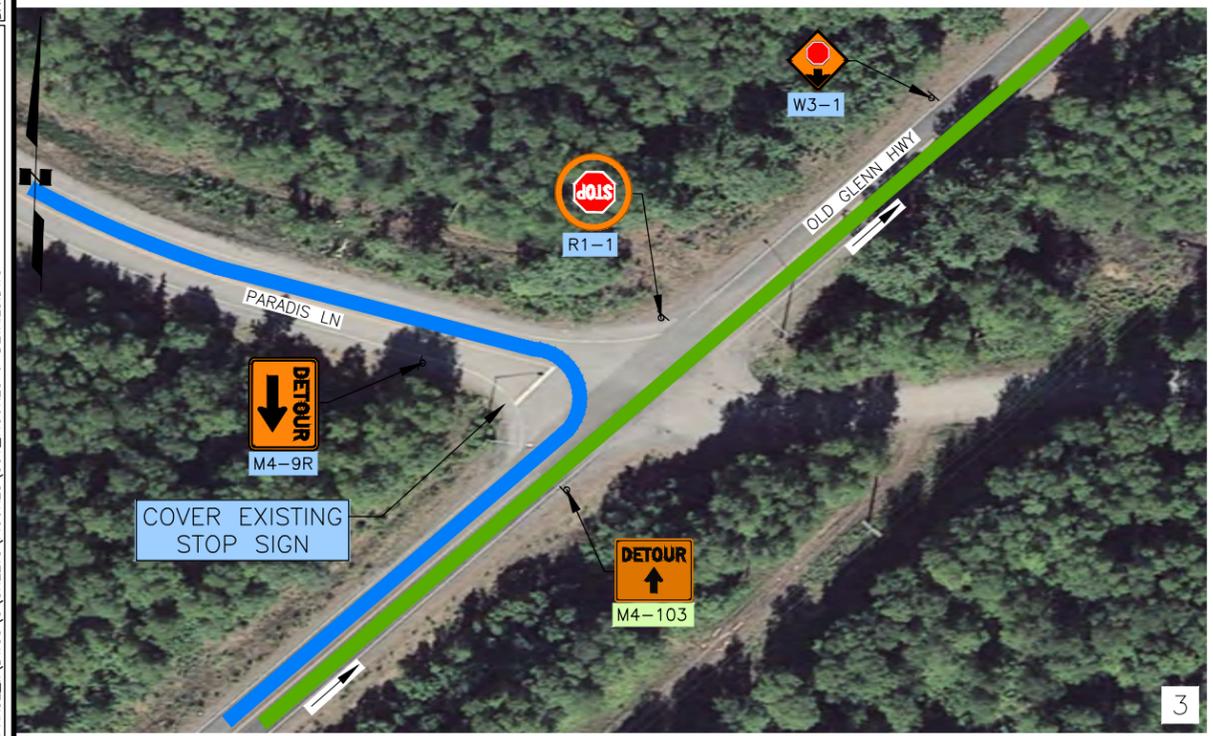
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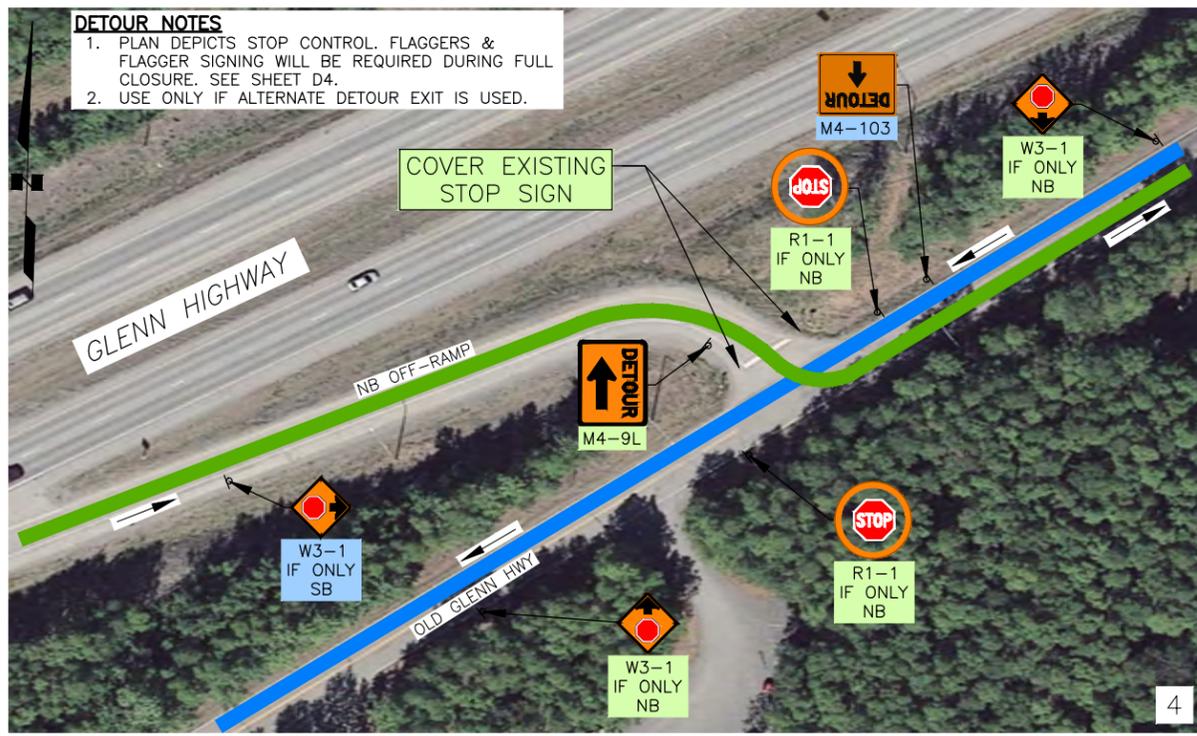
1



2



3



4

LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- TEMPORARY STOP SIGN
- TEMPORARY YIELD SIGN
- TEMPORARY TRAFFIC CONTROL SIGNS
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- COVER EXISTING EXISTING SIGN TO BE COVERED

- #### GENERAL NOTES
1. ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 2. HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 3. PLACE W3-1 SIGNS 500 FT IN ADVANCE OF R1-1 SIGNS.
 4. PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.

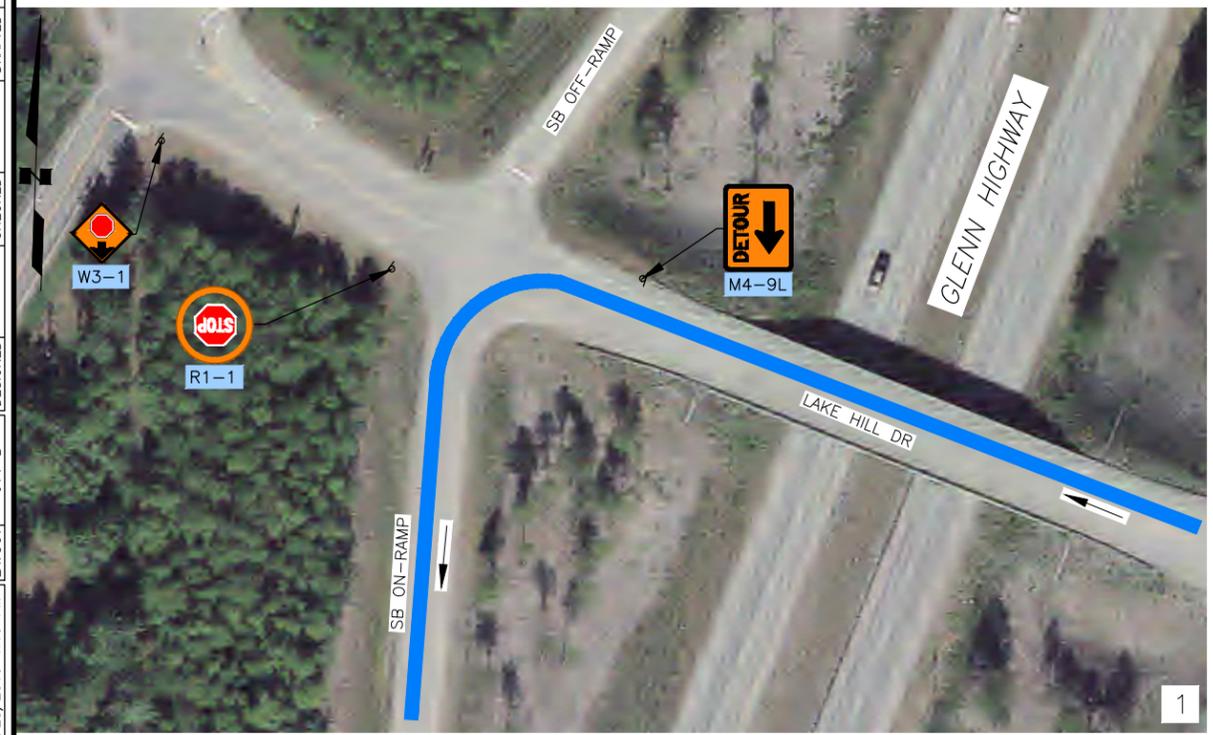
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GLENN HIGHWAY NORTH PETERS CREEK TO MIRROR LAKE INTERCHANGE CLOSURE DETAILS

PLANS DEVELOPED BY:
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 (907) 346-2373
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	J14-BJ17-G	

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LEGEND

	INCIDENT AREA/ CLOSED ROAD
	SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
	NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
	TEMPORARY STOP SIGN
	TEMPORARY YIELD SIGN
	TEMPORARY TRAFFIC CONTROL SIGNS
	MESSAGE BOARD SIGN (CMS)
	EXISTING SIGNAL
	COVER EXISTING
	EXISTING SIGN TO BE COVERED

GENERAL NOTES

- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
- HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
- PLACE W3-1 SIGNS 500 FT IN ADVANCE OF R1-1 SIGNS.
- PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.

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STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
**GLENN HIGHWAY
 NORTH PETERS CREEK TO
 MIRROR LAKE INTERCHANGE
 CLOSURE DETAILS**

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J14-Q	17-Q

TRAFFIC CONTROL DEVICE SUMMARY: EXISTING ROAD NETWORK DETOUR

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J14.1	J14.2	J14.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1			
ROAD WORK 1 MILE	CW20-1	2	2	4
RIGHT LANE CLOSED 1/2 MILE	CW20-5	2	2	4
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A			
RIGHT LANE CLOSED AHEAD	CW20-5R			
LEFT LANE CLOSED AHEAD	CW20-5L			
RIGHT LANE REDUCTION SYMBOL	CW4-2R	2	2	4
LEFT LANE REDUCTION SYMBOL	CW4-2L			
ROAD CLOSED	R11-2	1	1	2
LANE CLOSED	R11-102	4	4	8
DETOUR (RT)	M4-10R	1		1
DETOUR (LT)	M4-10L		1	1
DETOUR MARKER (RT)	M4-9R	1	2	3
DETOUR MARKER (LT)	M4-9L	2	2	4
DETOUR (UP)	M4-103	1	1	2
DETOUR AHEAD	CW20-2			
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1	4	4	4
YIELD	R1-2			
STOP AHEAD	CW3-1	4	5	4
YIELD AHEAD	CW3-2			
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L			
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R			
REVERSE CURVE LEFT	CW1-4L			
DO NOT PASS	R4-1			
TWO WAY TRAFFIC	CW6-3			
45 MPH ADVISORY	CW13-1			
35 MPH ADVISORY	CW13-1			
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-	5	5	10
DRUMS/TYPE II BARRICADES	-	16	16	32
CHANNELIZING DEVICES	-	120	120	230
ARROW BOARD	-	1	1	2
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-	1	1	2
CHANGEABLE MESSAGE BOARD	-	2	2	2
SURFACE MOUNT FLEXIBLE DELINEATORS	-			

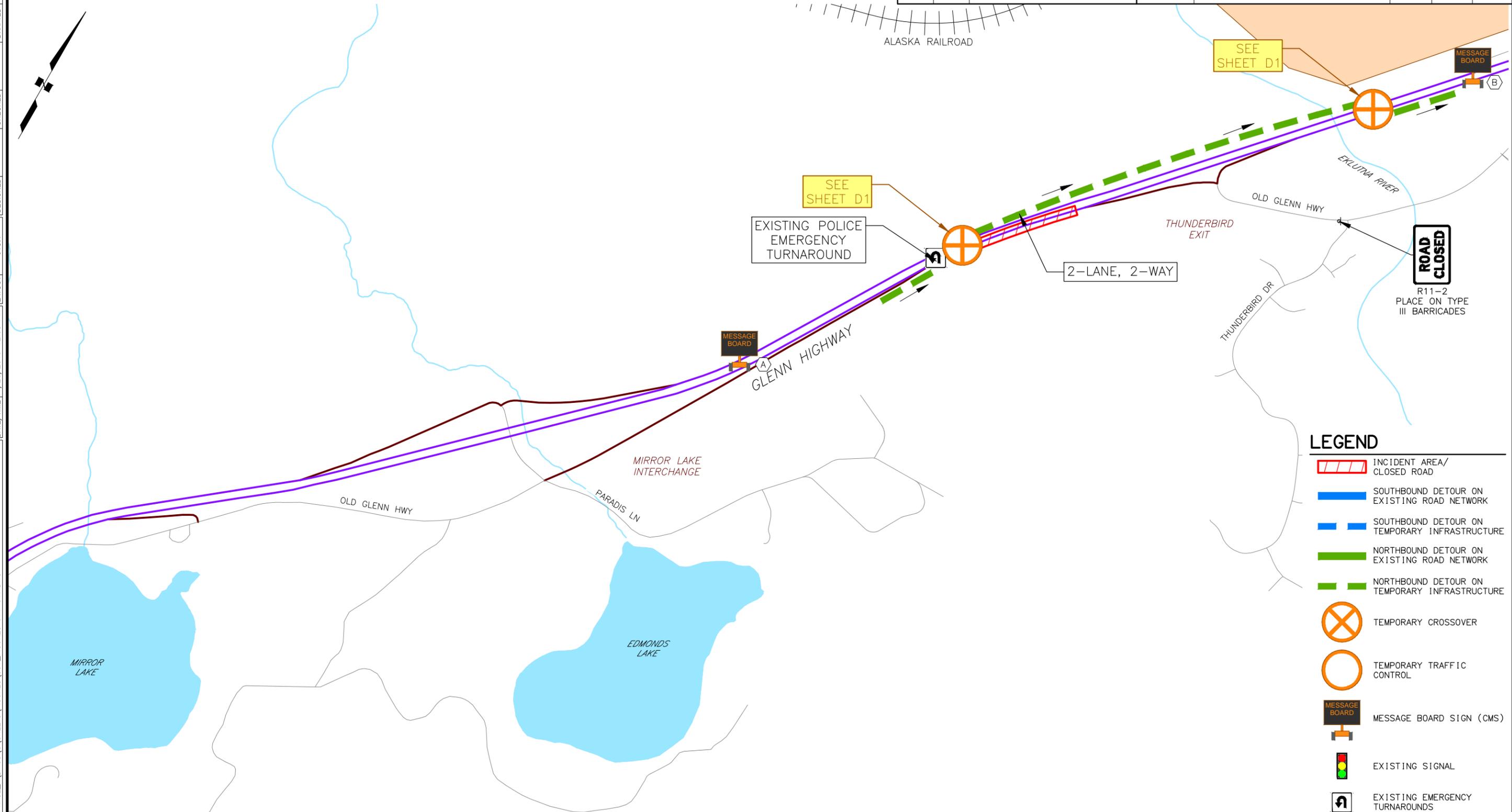
TRAFFIC CONTROL DEVICE SUMMARY: CROSSOVER DETOUR

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J14.1	J14.2	J14.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1	4	4	
ROAD WORK 1 MILE	CW20-1	2	2	
RIGHT LANE CLOSED 1/2 MILE	CW20-5	2	2	
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A			
RIGHT LANE CLOSED AHEAD	CW20-5R	2	2	
LEFT LANE CLOSED AHEAD	CW20-5L	2	2	
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4	4	
LEFT LANE REDUCTION SYMBOL	CW4-2L	2	2	
ROAD CLOSED	R11-2	1	1	
LANE CLOSED	R11-102	4	4	
DETOUR (RT)	M4-10R			
DETOUR (LT)	M4-10L			
DETOUR MARKER (RT)	M4-9R			
DETOUR MARKER (LT)	M4-9L			
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2			
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1			
YIELD	R1-2			
STOP AHEAD	CW3-1			
YIELD AHEAD	CW3-2			
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L	1	1	
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R	2	2	
REVERSE CURVE LEFT	CW1-4L	2	2	
DO NOT PASS	R4-1	20	20	
TWO WAY TRAFFIC	CW6-3	20	20	
45 MPH ADVISORY	CW13-1			
35 MPH ADVISORY	CW13-1	4	4	
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-	14	14	
DRUMS/TYPE II BARRICADES	-	86	86	
CHANNELIZING DEVICES	-	300	300	
ARROW BOARD	-	3	3	
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-	3	3	
CHANGEABLE MESSAGE BOARD	-	2	2	
SURFACE MOUNT FLEXIBLE DELINEATORS	-	200	200	

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY N PETERS CREEK TO MIRROR LAKE SEGMENT QUANTITIES	PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	J15.1	J17-G

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LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

CROSSOVER CMS MESSAGES

(A) GLENN HWY REDUCED TO ONE LANE/FOLLOW DETOUR

(B) LEFT LANE CLOSED AHEAD/GLENN HIGHWAY REDUCED TO ONE LANE

DETOUR NOTES

1. ALL DETOURS REQUIRE TEMPORARY INFRASTRUCTURE.

GENERAL NOTES

1. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

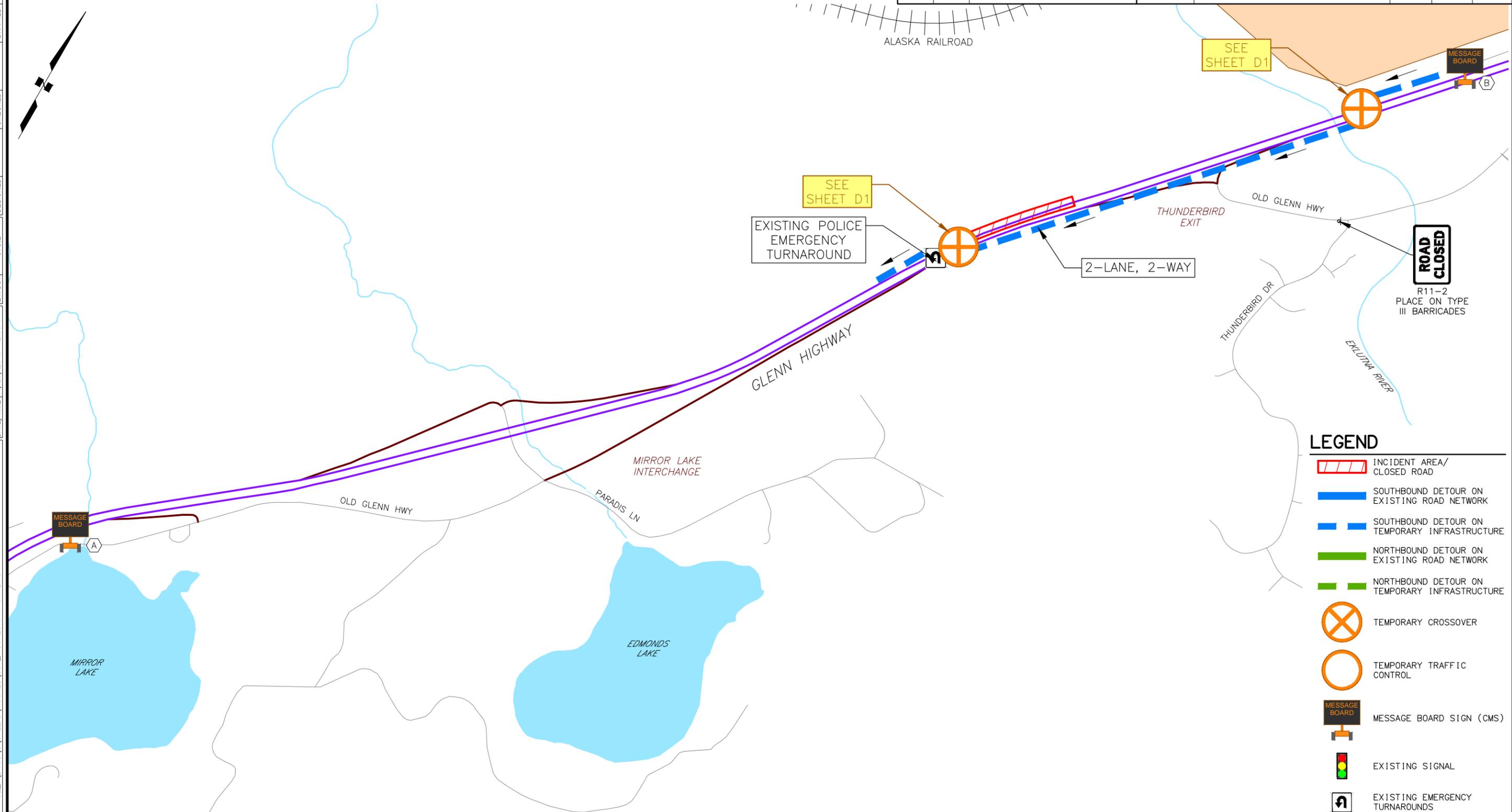
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STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 MIRROR LAKE INTERCHANGE
 TO THUNDERBIRD EXIT
 NORTHBOUND CLOSURE**

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	J15.2	J17-G

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LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

CROSSOVER CMS MESSAGES

A LEFT LANE CLOSED AHEAD/GLENN HIGHWAY REDUCED TO ONE LANE
 B GLENN HWY REDUCED TO ONE LANE/FOLLOW DETOUR

DETOUR NOTES

1. ALL DETOURS REQUIRE TEMPORARY INFRASTRUCTURE.

GENERAL NOTES

1. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

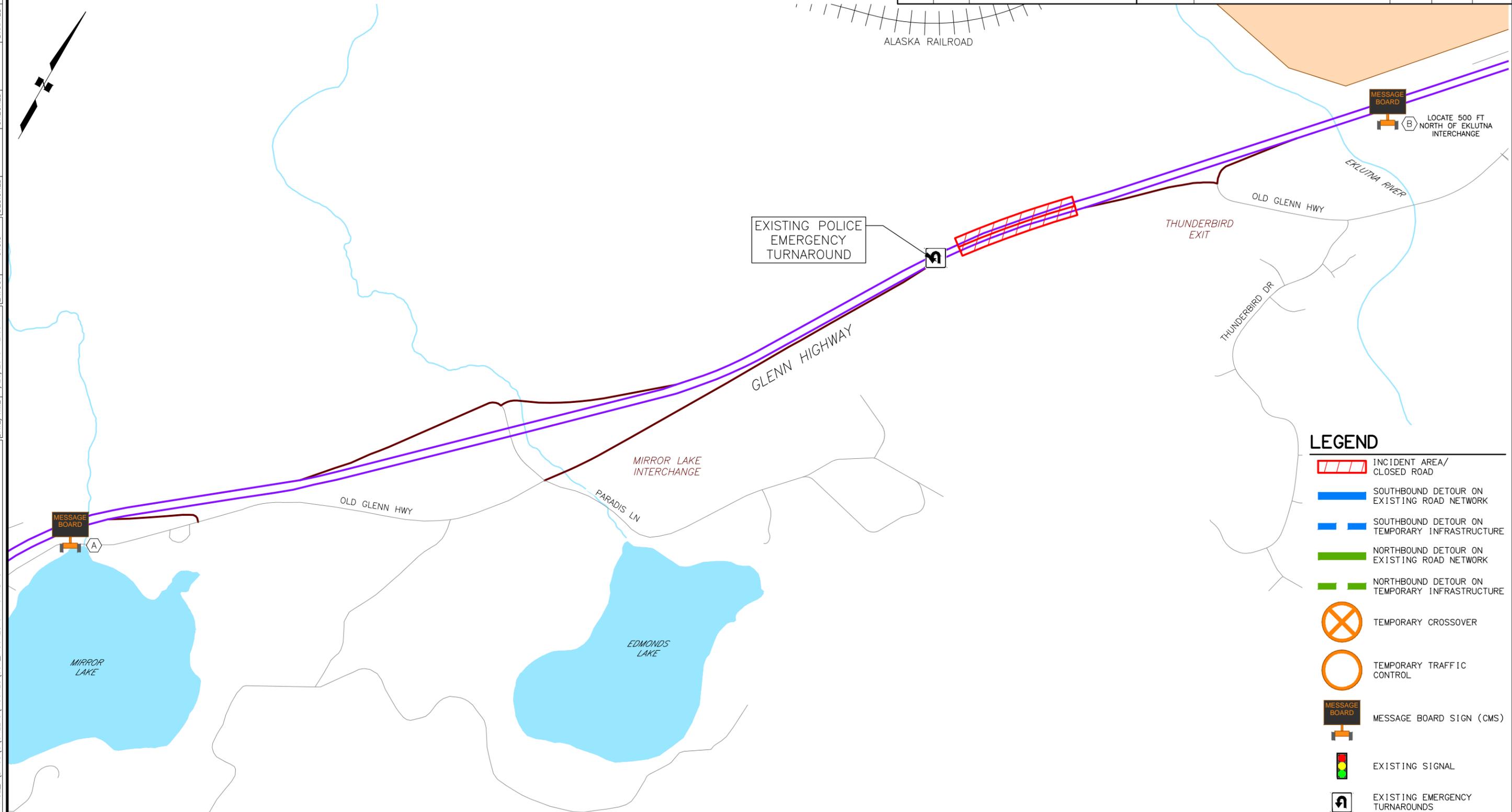
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STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 MIRROR LAKE INTERCHANGE
 TO THUNDERBIRD EXIT
 SOUTHBOUND CLOSURE**

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	J15.3	J17-G

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LEGEND

-  INCIDENT AREA/ CLOSED ROAD
-  SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
-  SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
-  NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
-  NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
-  TEMPORARY CROSSOVER
-  TEMPORARY TRAFFIC CONTROL
-  MESSAGE BOARD SIGN (CMS)
-  EXISTING SIGNAL
-  EXISTING EMERGENCY TURNAROUNDS

CROSSOVER CMS MESSAGES

A GLENN HWY CLOSED AT MIRROR LAKE
 B GLENN HWY CLOSED AT EKLUTNA

DETOUR NOTES

1. NO ROADWAY DETOUR AVAILABLE FOR FULL ROAD CLOSURE.

GENERAL NOTES

1. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 MIRROR LAKE INTERCHANGE
 TO THUNDERBIRD EXIT FULL
 CLOSURE**

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
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 (907) 346-2373
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J15-Q	17-Q

TRAFFIC CONTROL DEVICE SUMMARY: EXISTING ROAD NETWORK DETOUR

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J15.1	J15.2	J15.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1			
ROAD WORK 1 MILE	CW20-1			
RIGHT LANE CLOSED 1/2 MILE	CW20-5			
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A			
RIGHT LANE CLOSED AHEAD	CW20-5R			
LEFT LANE CLOSED AHEAD	CW20-5L			
RIGHT LANE REDUCTION SYMBOL	CW4-2R			
LEFT LANE REDUCTION SYMBOL	CW4-2L			
ROAD CLOSED	R11-2	1	1	
LANE CLOSED	R11-102			
DETOUR (RT)	M4-10R			
DETOUR (LT)	M4-10L			
DETOUR MARKER (RT)	M4-9R			
DETOUR MARKER (LT)	M4-9L			
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2			
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1			
YIELD	R1-2			
STOP AHEAD	CW3-1			
YIELD AHEAD	CW3-2			
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L			
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R			
REVERSE CURVE LEFT	CW1-4L			
DO NOT PASS	R4-1			
TWO WAY TRAFFIC	CW6-3			
45 MPH ADVISORY	CW13-1			
35 MPH ADVISORY	CW13-1			
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-	1	1	
DRUMS/TYPE II BARRICADES	-			
CHANNELIZING DEVICES	-			
ARROW BOARD	-			
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-			
CHANGEABLE MESSAGE BOARD	-	2	2	2
SURFACE MOUNT FLEXIBLE DELINEATORS	-			

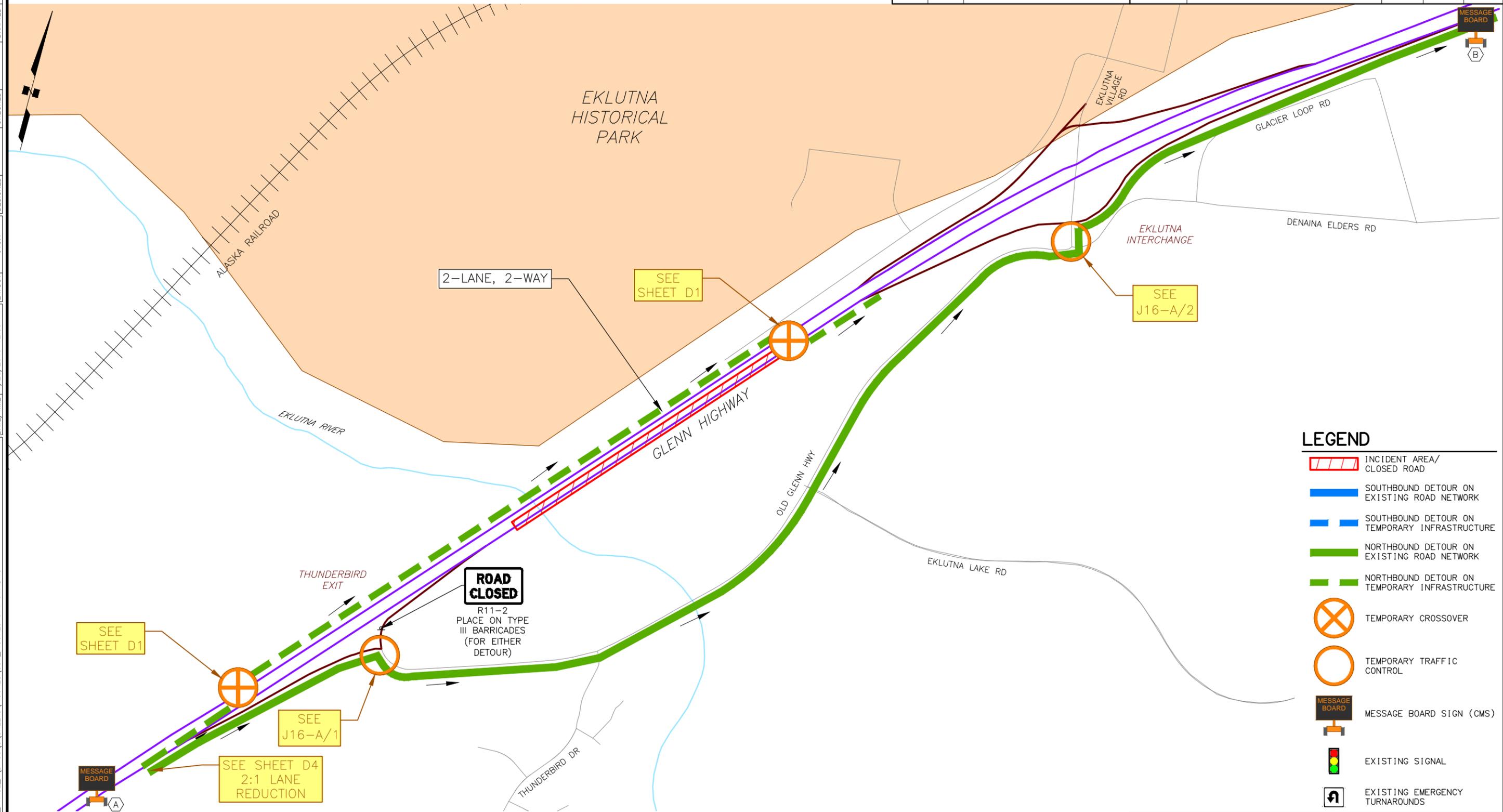
TRAFFIC CONTROL DEVICE SUMMARY: CROSSOVER DETOUR

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J15.1	J15.2	J15.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1	4	4	
ROAD WORK 1 MILE	CW20-1	2	2	
RIGHT LANE CLOSED 1/2 MILE	CW20-5	2	2	
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A			
RIGHT LANE CLOSED AHEAD	CW20-5R	2	2	
LEFT LANE CLOSED AHEAD	CW20-5L	2	2	
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4	4	
LEFT LANE REDUCTION SYMBOL	CW4-2L	2	2	
ROAD CLOSED	R11-2	2	2	
LANE CLOSED	R11-102	4	4	
DETOUR (RT)	M4-10R			
DETOUR (LT)	M4-10L			
DETOUR MARKER (RT)	M4-9R			
DETOUR MARKER (LT)	M4-9L			
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2			
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1			
YIELD	R1-2			
STOP AHEAD	CW3-1			
YIELD AHEAD	CW3-2			
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L	1	1	
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R	2	2	
REVERSE CURVE LEFT	CW1-4L	2	2	
DO NOT PASS	R4-1	20	20	
TWO WAY TRAFFIC	CW6-3	20	20	
45 MPH ADVISORY	CW13-1			
35 MPH ADVISORY	CW13-1	4	4	
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-	15	15	
DRUMS/TYPE II BARRICADES	-	86	86	
CHANNELIZING DEVICES	-	300	300	
ARROW BOARD	-	3	3	
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-	3	3	
CHANGEABLE MESSAGE BOARD	-	2	2	
SURFACE MOUNT FLEXIBLE DELINEATORS	-	200	200	

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY MIRROR LAKE TO THUNDERBIRD EXIT SEGMENT QUANTITIES
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	J16.1	J17-G

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_FIGURES J14-J17.DWG
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LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

- DETOUR CMS MESSAGES**
- (A) GLENN HWY CLOSED AT THUNDERBIRD FALLS/FOLLOW OLD GLENN HWY DETOUR
 - (B) NOT USED
- CROSSOVER CMS MESSAGES**
- (A) GLENN HWY REDUCED TO ONE LANE/FOLLOW DETOUR
 - (B) LEFT LANE CLOSED AHEAD/GLENN HIGHWAY REDUCED TO ONE LANE

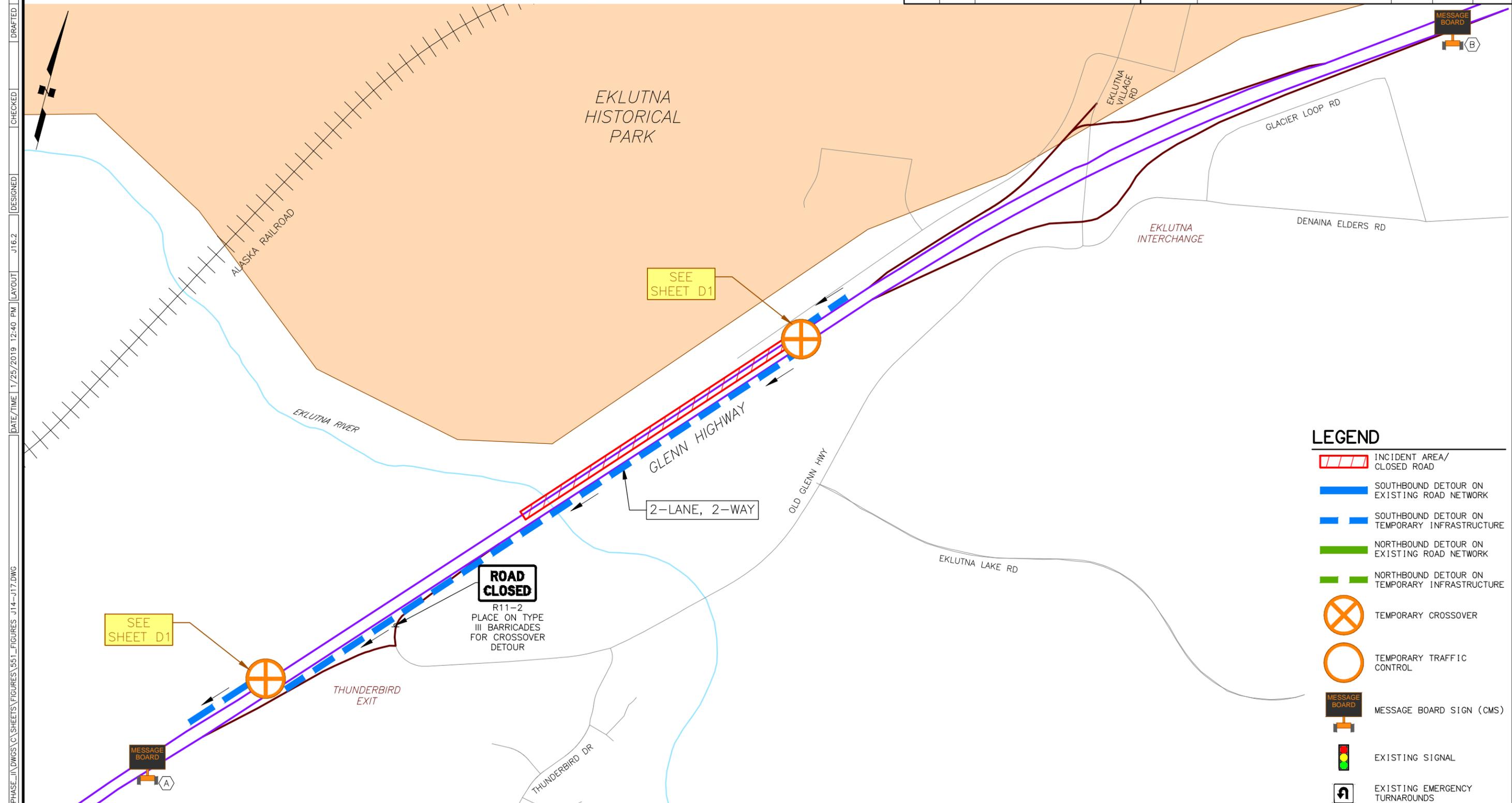
- GENERAL NOTES**
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
 - PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
 - LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY THUNDERBIRD EXIT TO EKLUTNA INTERCHANGE NORTHBOUND CLOSURE

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 3909 ARCTIC BLVD, SUITE 400
 ANCHORAGE, ALASKA 99503
 (907) 346-2373
 CERT. OF AUTH. NO. AECL 1102

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J16.2	J17-G



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

CROSSOVER CMS MESSAGES

(A) LEFT LANE CLOSED AHEAD/GLENN HIGHWAY REDUCED TO ONE LANE
 (B) GLENN HWY REDUCED TO ONE LANE/FOLLOW DETOUR

DETOUR NOTES
 1. ALL DETOURS REQUIRE TEMPORARY INFRASTRUCTURE.

GENERAL NOTES
 1. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

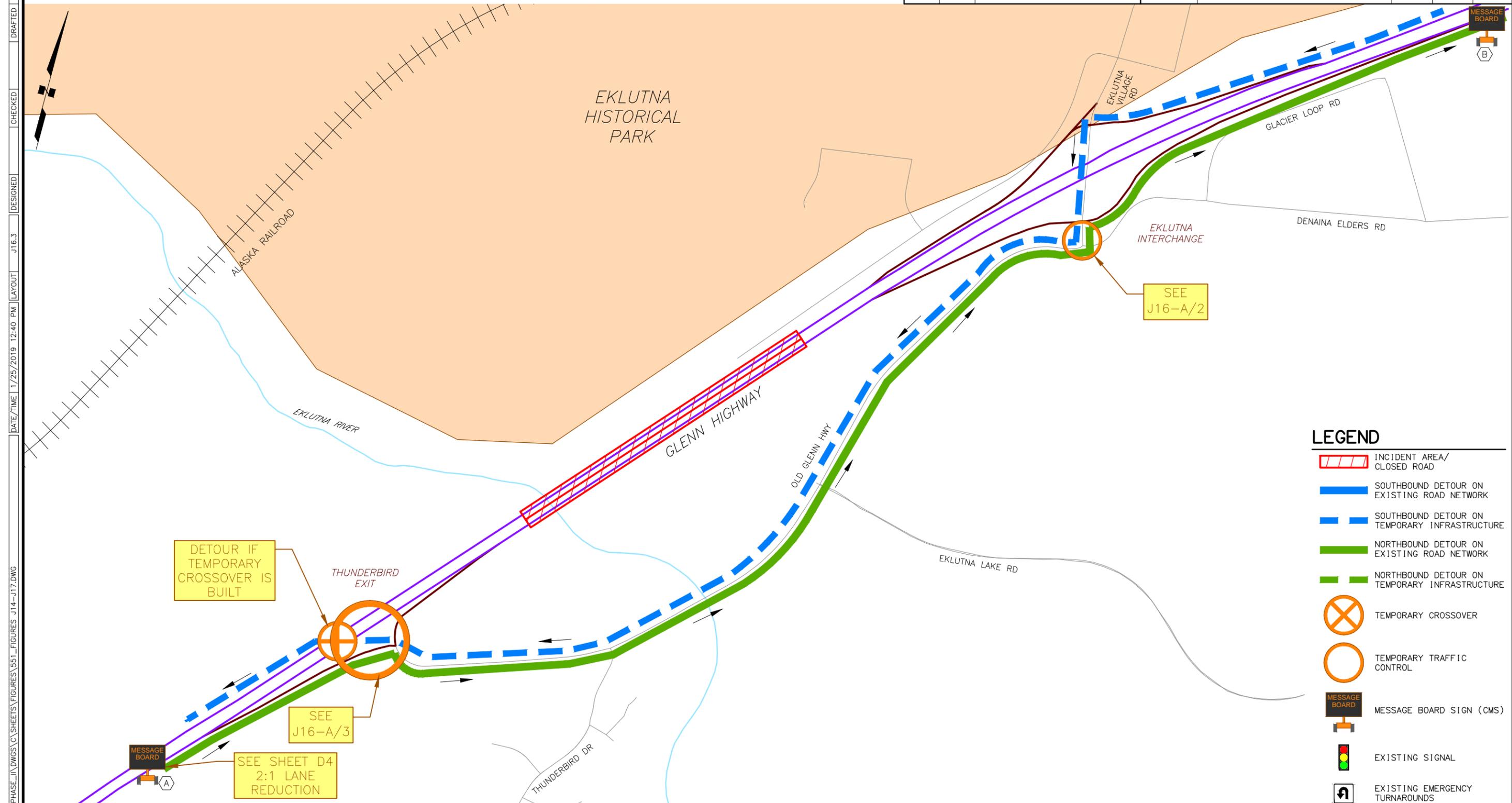
PLANS DEVELOPED BY:
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 3909 ARCTIC BLVD, SUITE 400
 ANCHORAGE, ALASKA 99503
 (907) 346-2373
 CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 THUNDERBIRD EXIT TO
 EKLUTNA INTERCHANGE
 SOUTHBOUND CLOSURE**

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	J16.3	J17-G



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

DETOUR CMS MESSAGES

(A) GLENN HWY CLOSED AT THUNDERBIRD/FOLLOW OLD GLENN HWY DETOUR
 (B) GLENN HWY CLOSED AT EKLUTNA/FOLLOW OLD GLENN HWY DETOUR*

*OMIT SECOND MESSAGE IF SB OLD GLENN HWY DETOUR NOT USED.

DETOUR NOTES

1. NO ROADWAY DETOUR AVAILABLE FOR SOUTHBOUND ROAD CLOSURE, UNLESS SB TRAFFIC IS DIVERTED TO THE OLD GLENN HWY AT EKLUTNA AND A TEMPORARY SB CONNECTION IS CONSTRUCTED AT THUNDERBIRD FALLS EXIT.

GENERAL NOTES

- ALL SIGNS ON FREEWAY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
- HIGH LEVEL WARNING DEVICES ON ALL TEMPORARY CONSTRUCTION & REGULATORY SIGNING.
- PLACE M4-9 SIGNS WITHIN 100 FT OF INTERSECTION.
- LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

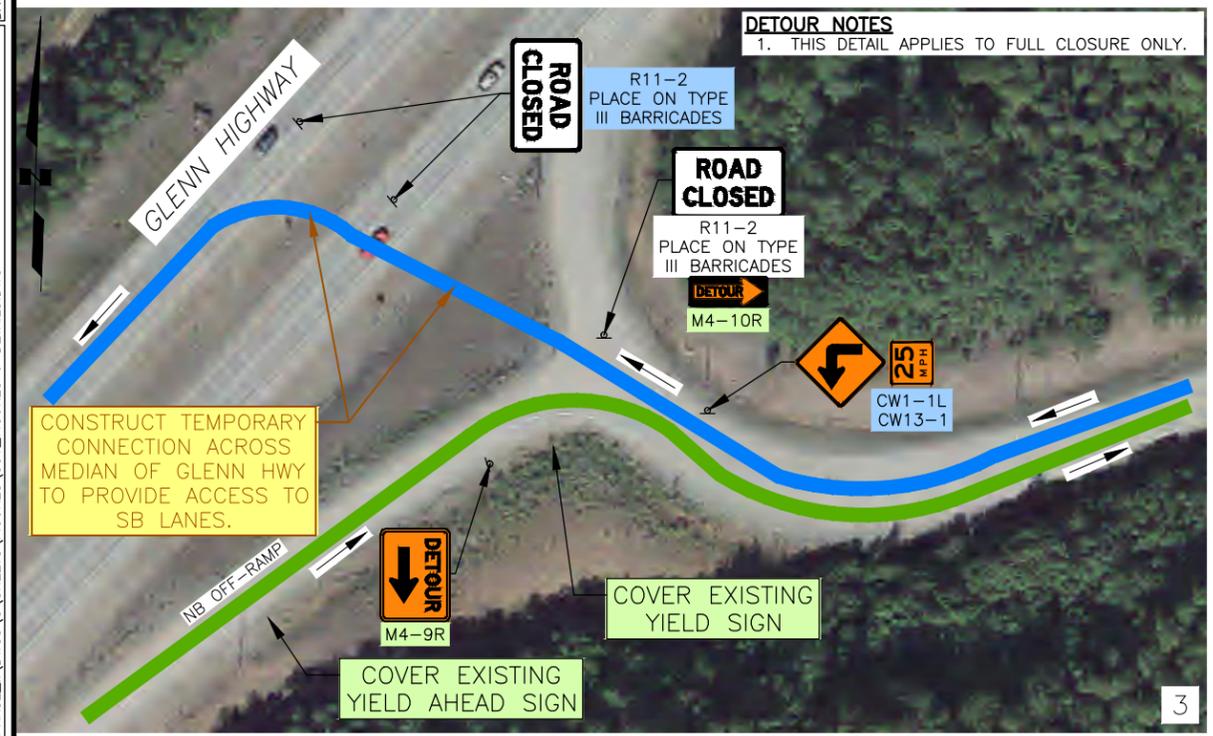
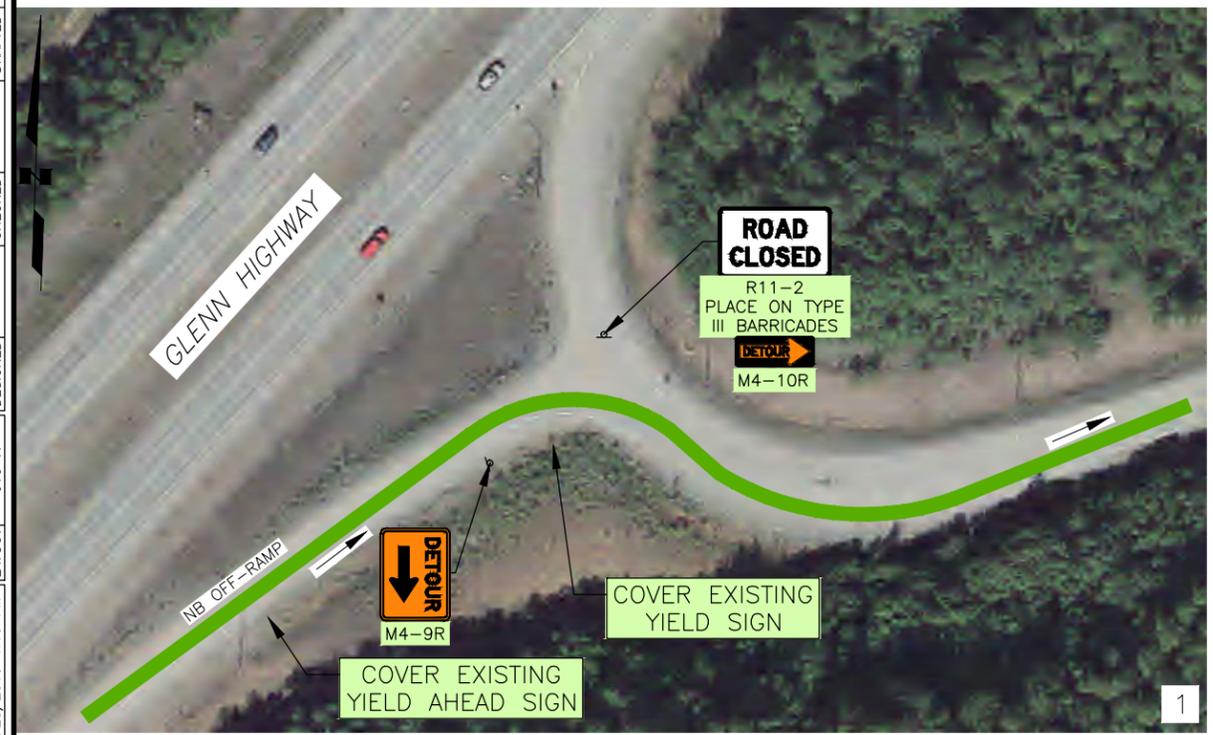
GLENN HIGHWAY THUNDERBIRD EXIT TO EKLUTNA INTERCHANGE FULL CLOSURE

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_FIGURES_J14-J17.DWG
 DATE/TIME 1/25/2019 12:40 PM LAYOUT J16.3
 DESIGNED J16.3
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	J16-AJ17-G	

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 DESIGNED CHECKED DRAFTED



DETOUR NOTES
1. THIS DETAIL APPLIES TO FULL CLOSURE ONLY.

CONSTRUCT TEMPORARY CONNECTION ACROSS MEDIAN OF GLENN HWY TO PROVIDE ACCESS TO SB LANES.

- GENERAL NOTES**
- ALL SIGNS ON GLENN HWY SHALL BE "FREEWAY OR EXPRESSWAY" SIZE. ALL OTHER SIGNS SHALL BE "CONVENTIONAL ROAD" SIZE AS SHOWN IN THE ALASKA TRAFFIC MANUAL.
 - PLACE W3-1 SIGNS 500 FT IN ADVANCE OF R1-1 SIGNS.
 - PLACE M4-9, M4-103, AND R3-2 SIGNS WITHIN 100 FT OF INTERSECTION.

LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- TEMPORARY STOP SIGN
- TEMPORARY YIELD SIGN
- TEMPORARY TRAFFIC CONTROL SIGNS
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- COVER EXISTING EXISTING SIGN TO BE COVERED

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES
**GLENN HIGHWAY
 NORTH PETERS CREEK TO
 MIRROR LAKE INTERCHANGE
 CLOSURE DETAILS**

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 3909 ARCTIC BLVD, SUITE 400
 ANCHORAGE, ALASKA 99503
 (907) 346-2373
 CERT. OF AUTH. NO. AECL 1102

FILE Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_QUANTITIES_J11-J17.DWG
 DATE/TIME 1/25/2019 1:18 PM LAYOUT J16-Q
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J16-Q	17-Q

TRAFFIC CONTROL DEVICE SUMMARY: EXISTING ROAD NETWORK DETOUR

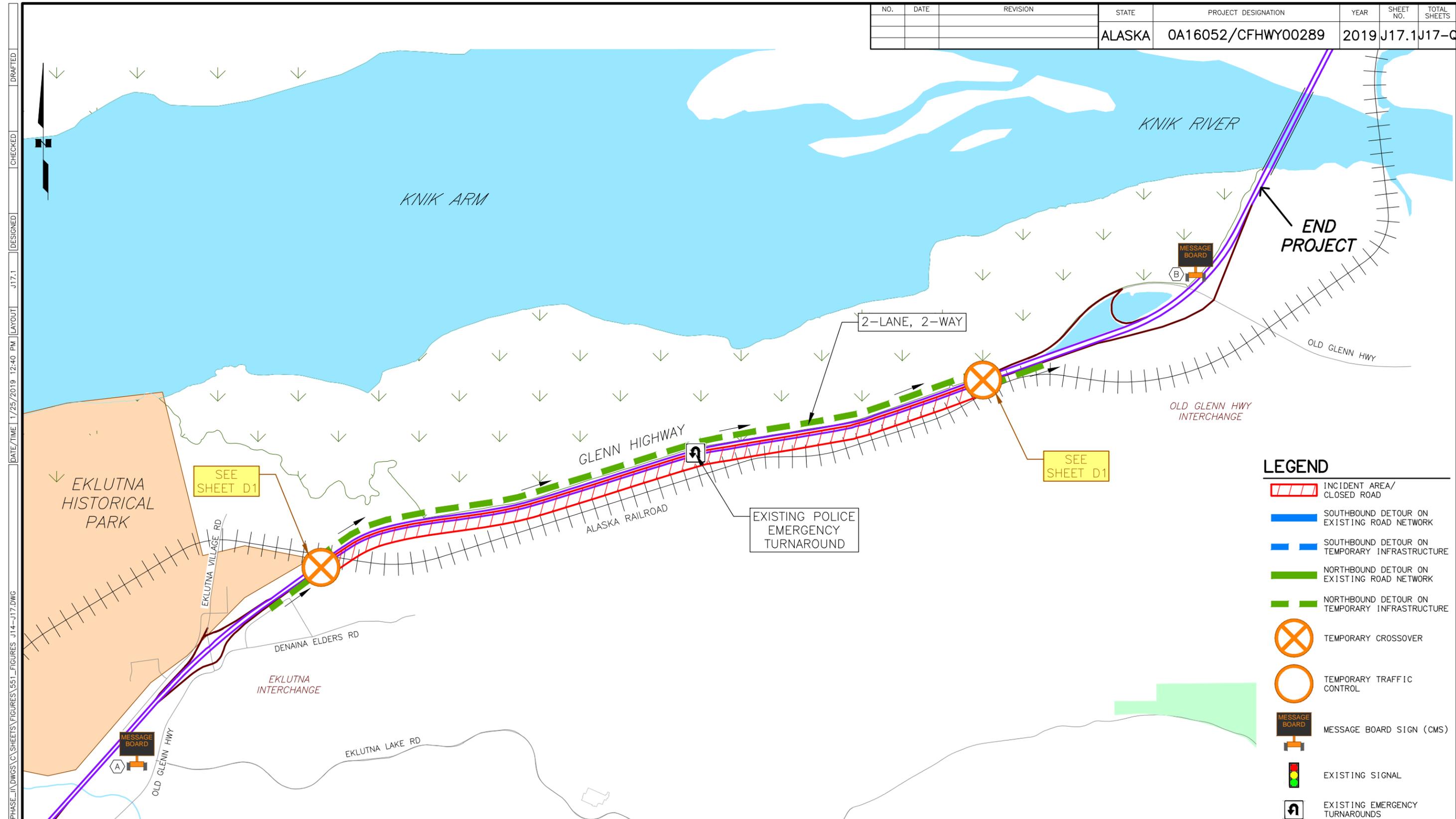
DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J16.1	J16.2	J16.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1			
ROAD WORK 1 MILE	CW20-1	2		4
RIGHT LANE CLOSED 1/2 MILE	CW20-5	2		4
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A			
RIGHT LANE CLOSED AHEAD	CW20-5R			
LEFT LANE CLOSED AHEAD	CW20-5L			
RIGHT LANE REDUCTION SYMBOL	CW4-2R	2		4
LEFT LANE REDUCTION SYMBOL	CW4-2L			
ROAD CLOSED	R11-2	1	1	3
LANE CLOSED	R11-102	4		8
DETOUR (RT)	M4-10R	1		1
DETOUR (LT)	M4-10L			
DETOUR MARKER (RT)	M4-9R	2		2
DETOUR MARKER (LT)	M4-9L	1		1
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2			
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1			
YIELD	R1-2	1		1
STOP AHEAD	CW3-1			
YIELD AHEAD	CW3-2			
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L			
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			1
REVERSE CURVE RIGHT	CW1-4R			
REVERSE CURVE LEFT	CW1-4L			
DO NOT PASS	R4-1			
TWO WAY TRAFFIC	CW6-3			
45 MPH ADVISORY	CW13-1			
35 MPH ADVISORY	CW13-1			
25 MPH ADVISORY	CW13-1			1
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-	5	1	11
DRUMS/TYPE II BARRICADES	-	16		32
CHANNELIZING DEVICES	-	100		236
ARROW BOARD	-	1		2
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-	1		2
CHANGEABLE MESSAGE BOARD	-	2	2	2
SURFACE MOUNT FLEXIBLE DELINEATORS	-			

TRAFFIC CONTROL DEVICE SUMMARY: CROSSOVER DETOUR

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J16.1	J16.2	J16.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1	4	4	
ROAD WORK 1 MILE	CW20-1	2	2	
RIGHT LANE CLOSED 1/2 MILE	CW20-5	2	2	
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A			
RIGHT LANE CLOSED AHEAD	CW20-5R	2	2	
LEFT LANE CLOSED AHEAD	CW20-5L	2	2	
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4	4	
LEFT LANE REDUCTION SYMBOL	CW4-2L	2	2	
ROAD CLOSED	R11-2	1	1	
LANE CLOSED	R11-102	4	4	
DETOUR (RT)	M4-10R			
DETOUR (LT)	M4-10L			
DETOUR MARKER (RT)	M4-9R			
DETOUR MARKER (LT)	M4-9L			
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2			
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1			
YIELD	R1-2			
STOP AHEAD	CW3-1			
YIELD AHEAD	CW3-2			
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L	1	1	
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R	2	2	
REVERSE CURVE LEFT	CW1-4L	2	2	
DO NOT PASS	R4-1	20	20	
TWO WAY TRAFFIC	CW6-3	20	20	
45 MPH ADVISORY	CW13-1			
35 MPH ADVISORY	CW13-1	4	4	
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-	14	14	
DRUMS/TYPE II BARRICADES	-	86	86	
CHANNELIZING DEVICES	-	300	300	
ARROW BOARD	-	3	3	
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-	3	3	
CHANGEABLE MESSAGE BOARD	-	2	2	
SURFACE MOUNT FLEXIBLE DELINEATORS	-	200	200	

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY THUNDERBIRD EXIT TO EKLUTNA SEGMENT QUANTITIES	PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	J17.1	J17-G



LEGEND

	INCIDENT AREA/ CLOSED ROAD
	SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
	SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
	NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
	NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
	TEMPORARY CROSSOVER
	TEMPORARY TRAFFIC CONTROL
	MESSAGE BOARD SIGN (CMS)
	EXISTING SIGNAL
	EXISTING EMERGENCY TURNAROUNDS

CROSSOVER CMS MESSAGES

A GLENN HWY REDUCED TO ONE LANE/FOLLOW DETOUR
 B LEFT LANE CLOSED AHEAD/GLENN HIGHWAY REDUCED TO ONE LANE

DETOUR NOTES
 1. ALL DETOURS REQUIRE TEMPORARY INFRASTRUCTURE.

GENERAL NOTES
 1. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

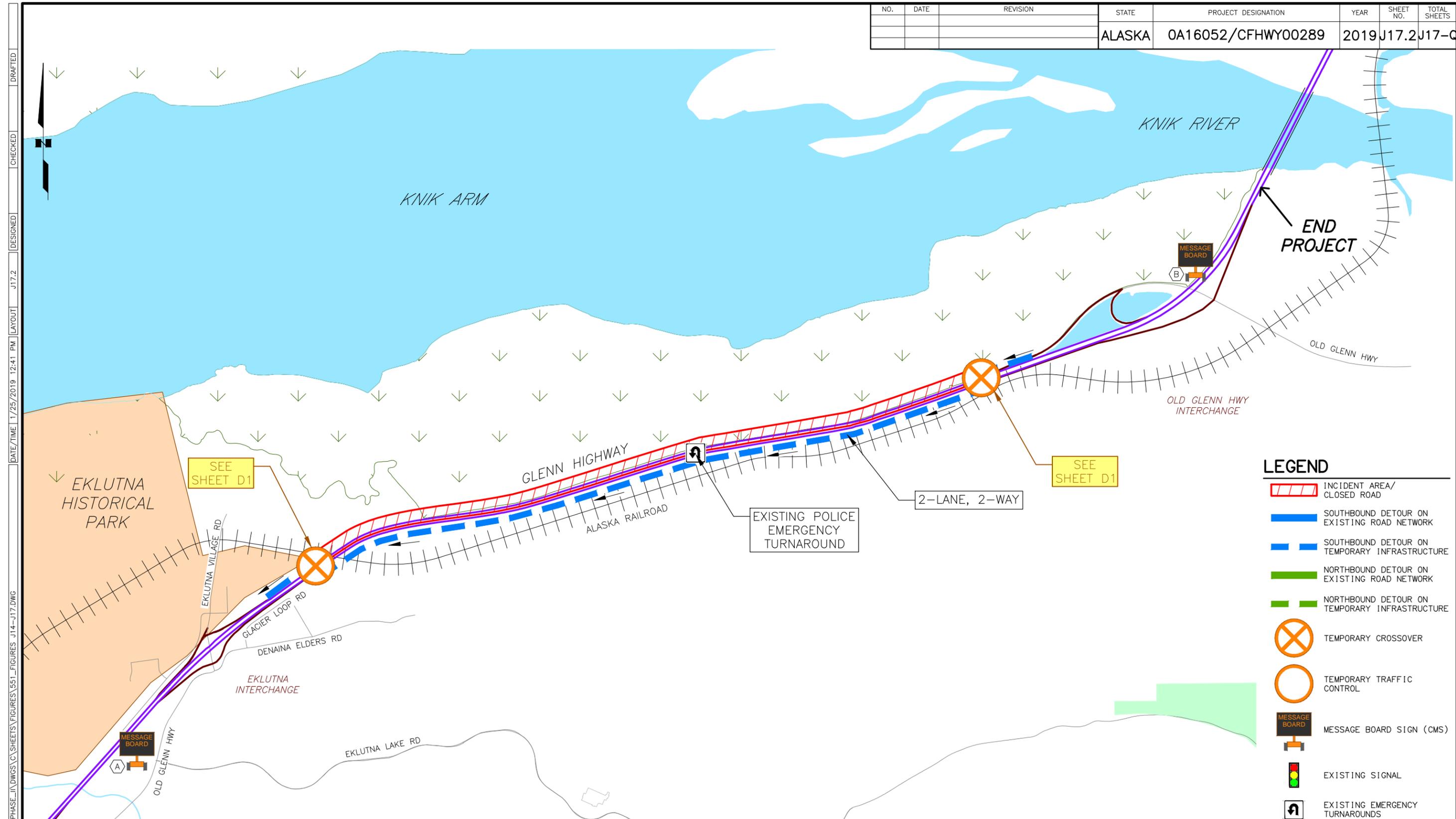
STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

GLENN HIGHWAY EKLUTNA TO OLD GLENN HWY INTERCHANGE NORTHBOUND CLOSURE

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 3909 ARCTIC BLVD, SUITE 400
 ANCHORAGE, ALASKA 99503
 (907) 346-2373
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J17.2	J17-G



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

CROSSOVER CMS MESSAGES

(A) LEFT LANE CLOSED AHEAD/GLENN HIGHWAY REDUCED TO ONE LANE

(B) GLENN HWY REDUCED TO ONE LANE/FOLLOW DETOUR

DETOUR NOTES

1. ALL DETOURS REQUIRE TEMPORARY INFRASTRUCTURE.

GENERAL NOTES

1. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

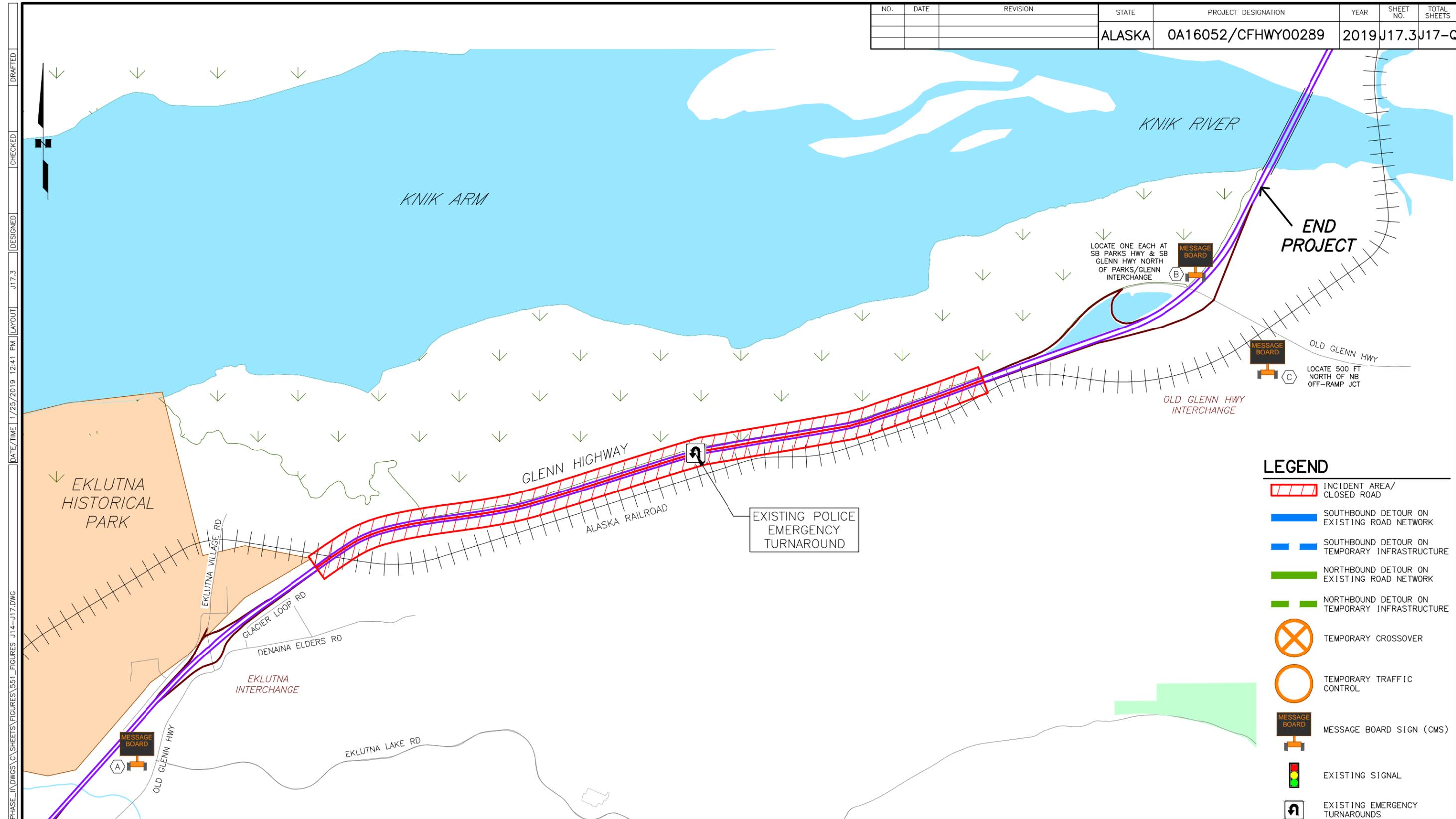
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY EKLUTNA TO OLD GLENN HWY INTERCHANGE SOUTHBOUND CLOSURE

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J17.3	J17-G



LEGEND

- INCIDENT AREA/ CLOSED ROAD
- SOUTHBOUND DETOUR ON EXISTING ROAD NETWORK
- SOUTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- NORTHBOUND DETOUR ON EXISTING ROAD NETWORK
- NORTHBOUND DETOUR ON TEMPORARY INFRASTRUCTURE
- TEMPORARY CROSSOVER
- TEMPORARY TRAFFIC CONTROL
- MESSAGE BOARD SIGN (CMS)
- EXISTING SIGNAL
- EXISTING EMERGENCY TURNAROUNDS

- CROSSOVER CMS MESSAGES**
- A GLENN HWY CLOSED AT EKLUTNA
 - B GLENN HWY CLOSED AT OLD GLENN HWY
 - C SB GLENN HWY CLOSED

DETOUR NOTES
 1. NO ROADWAY DETOUR AVAILABLE FOR FULL ROAD CLOSURE. CONSIDER ALTERNATE MODES.

GENERAL NOTES
 1. LOCATE CMS SIGNS ON GLENN HWY 1000 FT IN ADVANCE OF BEGINNING OF LANE CLOSURE(S).

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

GLENN HIGHWAY EKLUTNA TO OLD GLENN HWY INTERCHANGE FULL CLOSURE

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 3909 ARCTIC BLVD, SUITE 400
 ANCHORAGE, ALASKA 99503
 (907) 346-2373
 CERT. OF AUTH. NO. AECL 1102

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 DATE/TIME 1/25/2019 1:18 PM LAYOUT J17-Q
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	J17-Q	17-Q

TRAFFIC CONTROL DEVICE SUMMARY: EXISTING ROAD NETWORK DETOUR

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J17.1	J17.2	J17.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1			
ROAD WORK 1 MILE	CW20-1			
RIGHT LANE CLOSED 1/2 MILE	CW20-5			
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A			
RIGHT LANE CLOSED AHEAD	CW20-5R			
LEFT LANE CLOSED AHEAD	CW20-5L			
RIGHT LANE REDUCTION SYMBOL	CW4-2R			
LEFT LANE REDUCTION SYMBOL	CW4-2L			
ROAD CLOSED	R11-2			
LANE CLOSED	R11-102			
DETOUR (RT)	M4-10R			
DETOUR (LT)	M4-10L			
DETOUR MARKER (RT)	M4-9R			
DETOUR MARKER (LT)	M4-9L			
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2			
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1			
YIELD	R1-2			
STOP AHEAD	CW3-1			
YIELD AHEAD	CW3-2			
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L			
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R			
REVERSE CURVE LEFT	CW1-4L			
DO NOT PASS	R4-1			
TWO WAY TRAFFIC	CW6-3			
45 MPH ADVISORY	CW13-1			
35 MPH ADVISORY	CW13-1			
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-			
DRUMS/TYPE II BARRICADES	-			
CHANNELIZING DEVICES	-			
ARROW BOARD	-			
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-			
CHANGEABLE MESSAGE BOARD	-	2	2	3
SURFACE MOUNT FLEXIBLE DELINEATORS	-			

TRAFFIC CONTROL DEVICE SUMMARY: CROSSOVER DETOUR

DESCRIPTION	MUTCD SIGN CODE IF APPLICABLE	J17.1	J17.2	J17.3
		QTY	QTY	QTY
ROAD CLOSED AHEAD	CW20-3			
ROAD WORK AHEAD	CW20-1	4	4	
ROAD WORK 1 MILE	CW20-1	2	2	
RIGHT LANE CLOSED 1/2 MILE	CW20-5	2	2	
2 RIGHT LANE CLOSED 1/2 MILE	CW20-5A			
RIGHT LANE CLOSED AHEAD	CW20-5R	2	2	
LEFT LANE CLOSED AHEAD	CW20-5L	2	2	
RIGHT LANE REDUCTION SYMBOL	CW4-2R	4	4	
LEFT LANE REDUCTION SYMBOL	CW4-2L	2	2	
ROAD CLOSED	R11-2	1	1	
LANE CLOSED	R11-102	4	4	
DETOUR (RT)	M4-10R			
DETOUR (LT)	M4-10L			
DETOUR MARKER (RT)	M4-9R			
DETOUR MARKER (LT)	M4-9L			
DETOUR (UP)	M4-103			
DETOUR AHEAD	CW20-2			
NO RIGHT TURN	R3-1			
NO LEFT TURN	R3-2			
STOP	R1-1			
YIELD	R1-2			
STOP AHEAD	CW3-1			
YIELD AHEAD	CW3-2			
RIGHT ARROW	CW1-6R			
LEFT ARROW	CW1-6L	1	1	
RIGHT TURN	CW1-1R			
LEFT TURN	CW1-1L			
REVERSE CURVE RIGHT	CW1-4R	2	2	
REVERSE CURVE LEFT	CW1-4L	2	2	
DO NOT PASS	R4-1	20	20	
TWO WAY TRAFFIC	CW6-3	20	20	
45 MPH ADVISORY	CW13-1			
35 MPH ADVISORY	CW13-1	4	4	
25 MPH ADVISORY	CW13-1			
LOCAL TRAFFIC ONLY	SPECIAL			
TYPE III BARRICADES	-	14	14	
DRUMS/TYPE II BARRICADES	-	86	86	
CHANNELIZING DEVICES	-	300	300	
ARROW BOARD	-	3	3	
PORTABLE CONCRETE BARRIERS	-			
TEMPORARY CRASH CUSHION	-			
PORTABLE LIGHTING	-	3	3	
CHANGEABLE MESSAGE BOARD	-	2	2	
SURFACE MOUNT FLEXIBLE DELINEATORS	-	200	200	

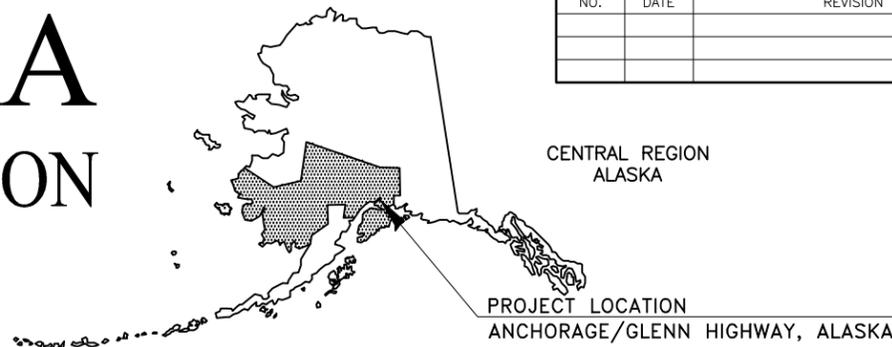
STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY EKLUTNA TO OLD GLENN HWY SEGMENT QUANTITIES	PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102
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Appendix B: Detour Route Capacity Analysis Sheets

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STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES



NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL 'A' SHEETS
			ALASKA	OA16052/CFHWY00289	2019	A1	A2
						PLAN SET TOTAL	53

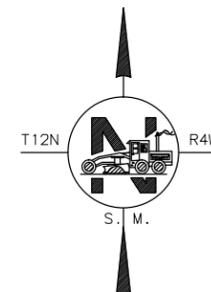
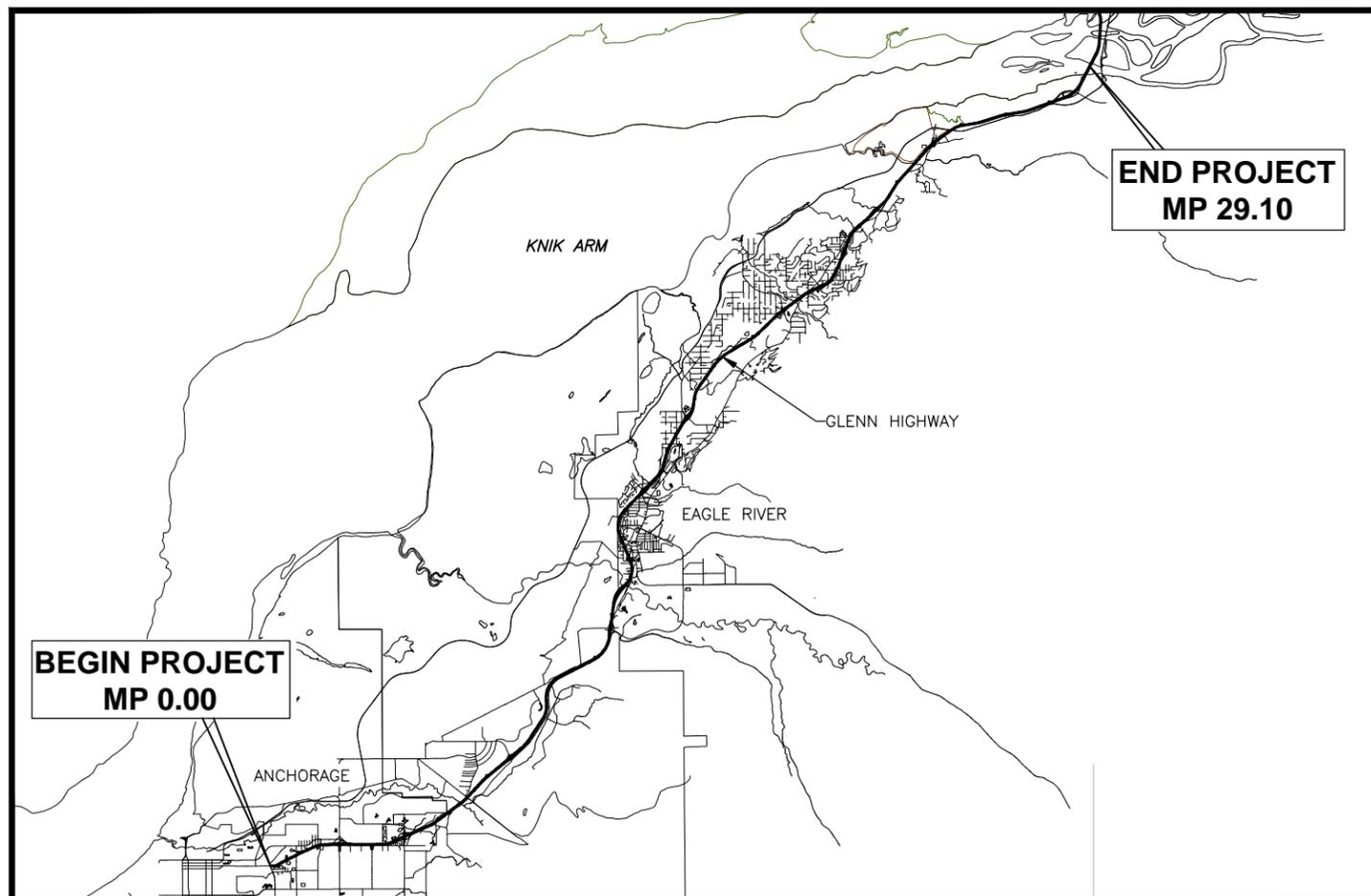
INDEX	
SHEET NO.	DESCRIPTION
A1	COVER SHEET
A2	DETAILED INDEX OF SHEETS
TJ1.0-TJ17.0	DETOUR ROUTE CAPACITY ANALYSIS SHEETS

PROPOSED HIGHWAY PROJECT

GLENN HIGHWAY INTEGRATED CORRIDOR MANAGEMENT (ICM) STUDY - PHASE II

PROJECT NO. OA16052/CFHWY00289

DETOUR ROUTE CAPACITY ANALYSIS



PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
 4111 AVIATION AVENUE, ANCHORAGE, AK 99502
 (907)269-0590

APPROVED:

REGIONAL PRE-CONSTRUCTION ENGINEER DATE

CONCUR:

REGIONAL CONSTRUCTION ENGINEER DATE

FILE [Z:\PROJECTS\00551_GLENN_HWY_PHASE_II\DWGS\C\SHEETS\FIGURES\551_FIGURES_A2_INDEX_OF_SHEETS_TJ.DWG] DATE/TIME 1/25/2019 2:54 PM LAYOUT A2 DESIGNED xxx CHECKED xxx DRAFTED xxx

SHEET NO.		DESCRIPTION
TJ1	.0	AIRPORT HEIGHTS TO BRAGAW DETOUR DEMAND SERVICED
	.1	NORTHBOUND DETOUR CAPACITY ANALYSIS
	.2	SOUTHBOUND DETOUR CAPACITY ANALYSIS
TJ2		BRAGAW TO BONIFACE
	.0	DETOUR DEMAND SERVICED
	.1A	NORTHBOUND DETOUR CAPACITY ANALYSIS
	.1B	NORTHBOUND DETOUR CAPACITY ANALYSIS
	.2A	SOUTHBOUND DETOUR CAPACITY ANALYSIS
TJ3	.2B	SOUTHBOUND DETOUR CAPACITY ANALYSIS
		BONIFACE TO MULDOON
	.0	DETOUR DEMAND SERVICED
	.1A	NORTHBOUND DETOUR CAPACITY ANALYSIS
	.1B	NORTHBOUND DETOUR CAPACITY ANALYSIS
TJ4	.2A	SOUTHBOUND DETOUR CAPACITY ANALYSIS
	.2B	SOUTHBOUND DETOUR CAPACITY ANALYSIS
TJ5		MULDOON TO ARCTIC VALLEY
	.0	DETOUR DEMAND SERVICED
TJ6		ARCTIC VALLEY TO JBER-RICHARDSON
	.0	DETOUR DEMAND SERVICED
TJ7	.1	NORTHBOUND DETOUR CAPACITY ANALYSIS
		JBER-RICHARDSON TO WEIGH STATION
TJ8	.0	DETOUR DEMAND SERVICED
	.1	NORTHBOUND DETOUR CAPACITY ANALYSIS
TJ9		WEIGH STATION TO EAGLE RIVER LP RD/HILAND
	.0	DETOUR DEMAND SERVICED
TJ10		EAGLE RIVER LP RD/HILAND TO EAGLE RIVER/ARTILLERY
	.0	DETOUR DEMAND SERVICED
	.1	NORTHBOUND DETOUR CAPACITY ANALYSIS
TJ11	.2	SOUTHBOUND DETOUR CAPACITY ANALYSIS
		EAGLE RIVER/ARTILLERY TO N EAGLE RIVER
	.0	DETOUR DEMAND SERVICED
	.1A	NORTHBOUND DETOUR CAPACITY ANALYSIS
	.1B	NORTHBOUND DETOUR CAPACITY ANALYSIS
TJ12	.2A	SOUTHBOUND DETOUR CAPACITY ANALYSIS
	.2B	SOUTHBOUND DETOUR CAPACITY ANALYSIS
		N EAGLE RIVER TO S BIRCHWOOD
	.0	DETOUR DEMAND SERVICED
	.1A	NORTHBOUND DETOUR CAPACITY ANALYSIS
TJ13	.1B	NORTHBOUND DETOUR CAPACITY ANALYSIS
	.2A	SOUTHBOUND DETOUR CAPACITY ANALYSIS
	.2B	SOUTHBOUND DETOUR CAPACITY ANALYSIS
		S BIRCHWOOD TO N BIRCHWOOD
	.0	DETOUR DEMAND SERVICED
TJ14	.1A	NORTHBOUND DETOUR CAPACITY ANALYSIS
	.1B	NORTHBOUND DETOUR CAPACITY ANALYSIS
	.2A	SOUTHBOUND DETOUR CAPACITY ANALYSIS
TJ15	.2B	SOUTHBOUND DETOUR CAPACITY ANALYSIS
		N BIRCHWOOD TO PETERS CREEK
	.0	DETOUR DEMAND SERVICED
TJ16	.1	NORTHBOUND DETOUR CAPACITY ANALYSIS
	.2	SOUTHBOUND DETOUR CAPACITY ANALYSIS
		PETERS CREEK TO N PETERS CREEK
TJ17	.0	DETOUR DEMAND SERVICED
	.1	NORTHBOUND DETOUR CAPACITY ANALYSIS
	.2	SOUTHBOUND DETOUR CAPACITY ANALYSIS
TJ18		N PETERS CREEK TO MIRROR LAKE
	.0	DETOUR DEMAND SERVICED
	.1A	NORTHBOUND DETOUR CAPACITY ANALYSIS
TJ19	.1B	NORTHBOUND DETOUR CAPACITY ANALYSIS
	.2	SOUTHBOUND DETOUR CAPACITY ANALYSIS
		MIRROR LAKE TO THUNDERBIRD EXIT
TJ20	.0	DETOUR DEMAND SERVICED
	.1	NORTHBOUND DETOUR CAPACITY ANALYSIS
TJ21		THUNDERBIRD EXIT TO EKLUTNA
	.0	DETOUR DEMAND SERVICED
TJ22	.1	NORTHBOUND DETOUR CAPACITY ANALYSIS
		EKLUTNA TO OLD GLENN HWY
TJ23	.0	DETOUR DEMAND SERVICED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	A2	A2

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES AMATS: GLENN HIGHWAY INTEGRATED CORRIDOR MANAGEMENT (ICM) STUDY - PHASE II INDEX OF SHEETS
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DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON EXISTING ROAD NETWORK

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF DETOUR ROUTE (VPH)	TOTAL DETOUR DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	800	1,560	0%
	PM	800	4,600	0%
Southbound	AM	1,000	4,030	20%
	PM	1,000	1,990	20%

*Total detour demand is the sum of existing demand on the detour route plus rerouted demand from the Glenn Highway due to closure of the Glenn Highway.

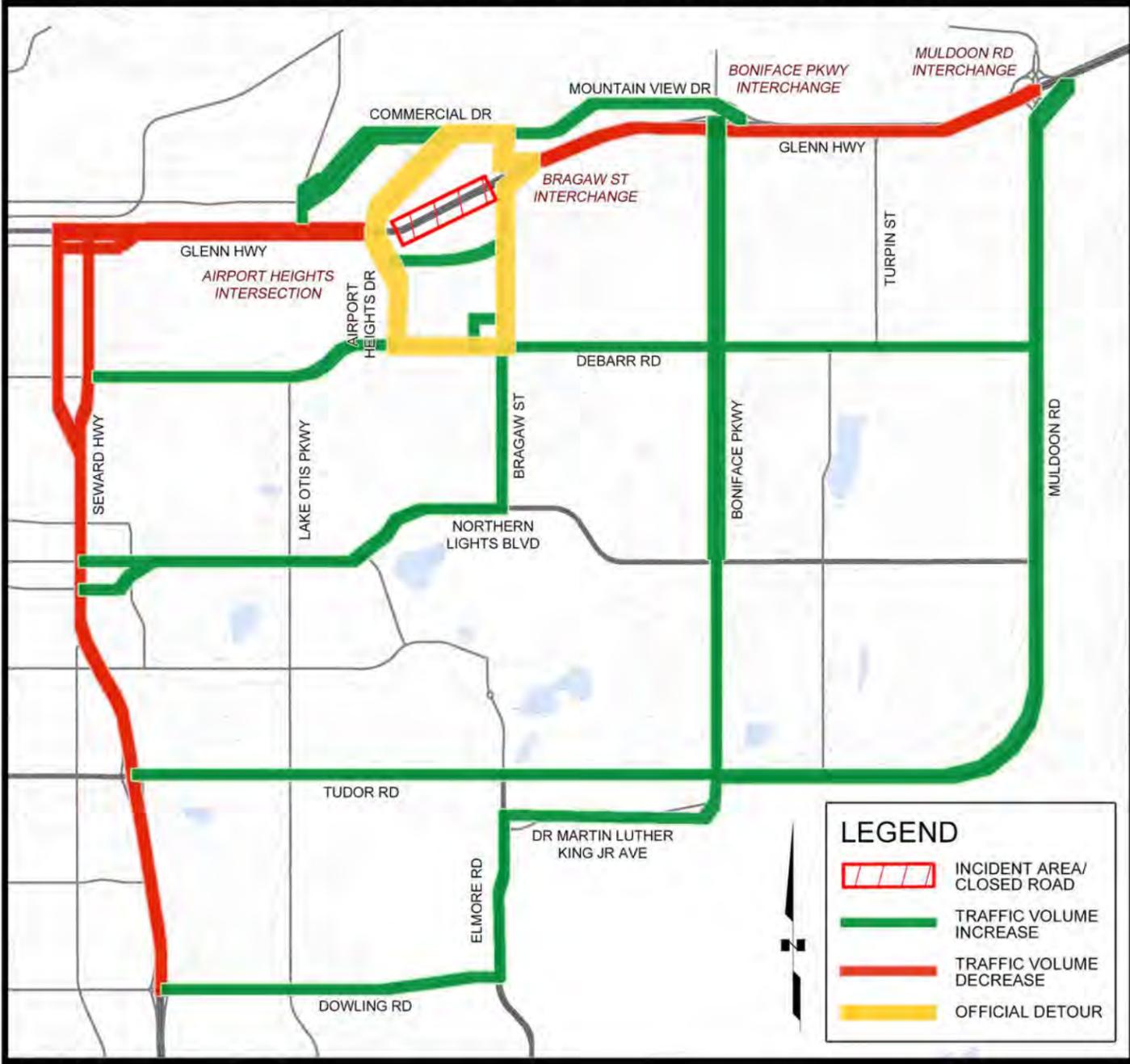
DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON TEMPORARY INFRASTRUCTURE

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF CROSSOVER (VPH)	CROSSOVER DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	2,800	700	100%
	PM	2,800	3,700	75%
Southbound	AM	2,800	3,700	75%
	PM	2,800	1,200	100%

*Crossover demand is the existing directional demand on the Glenn Highway.

Note: Capacity estimates are based on HCM methodology and planning level design with a target performance of LOS D/E. The detour demand is the total volume that is currently using the closed section of highway. Not all of the traffic currently using this section of highway will use the official detour, as shown in the figure to the right. Once the capacity of the detour is met, traffic will find alternative paths.

PREDICTED ALTERNATIVE DETOUR ROUTING DUE TO CLOSURES



Note: Alternative routes are estimated using 2013 Base model of the 2040 AMATS Model. Highlighted routes are routes which are likely to experience over a 1,000 AADT increase or decrease due to redirected traffic.

STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY AIRPORT HEIGHTS TO BRAGAW ST INTERCHANGE DETOUR ROUTE CAPACITY ANALYSIS	PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF AUTH. NO. AECL 1102
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FILE | DATE/TIME | LAYOUT | DESIGNED | CHECKED | DRAFTED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	TJ1.1	TJ17.0

DETOUR SEGMENT AND INTERSECTION CAPACITY



Note: The purpose of this graphic is to show a qualitative comparison of capacity on the segments and intersections along the detour routes. This will help to identify likely locations of bottlenecks, community impacts, and areas of possible improvement.

CAPACITY CRITERIA QUALITIES OF NORTHBOUND DETOUR SEGMENTS

SEGMENT	1	2	3	4	5	6
LENGTH (MILES)	0.15	0.38	0.48	0.41	0.32	0.21
NUMBER OF LANES IN DETOUR DIRECTION	2	2	2	2	2	1
DRIVEWAY DENSITY	Low	Low	High	High	Low	Low
MEDIAN TYPE	Closed	Open	TWLT	Closed	Open	Closed
OTHER DESIGN FEATURES (SEE NOTE)	-	-	-	-	-	-
AVERAGE AADT (2015 - 2017)	12,900	10,950	21,000	18,550	19,100	5,750
SEGMENT DETOUR CAPACITY RATING	★★★★	★★★★	★★★★	★★★★	★★★	★
COMMUNITY IMPACT	Low	Medium	Medium	Medium	Medium	Low

Note: Standard design features include posted speed limits of 35 mph or greater, lanes 12 ft wide or greater, shoulders 6 ft wide or greater, and level terrain. Unless otherwise notes, the segment has standard design features.

CAPACITY CRITERIA QUALITIES OF SIGNALS ON NORTHBOUND DETOUR

SIGNAL	a	b	c	d	e	f
NUMBER OF LANES IN DETOUR DIRECTION	2	2	1	1	2	1
DETOUR APPROACH ON MAJOR ROAD?	Yes	Yes	No	Yes	Yes	Yes
MOVEMENT	Right	Through	Left	Left	Through	Right
LANE REDUCTION (MERGE) PRIOR TO INTERSECTION	No	No	Yes	Yes	No	Yes
SIGNAL DETOUR CAPACITY RATING	★★★★	★★★★	★	★	★★★	★

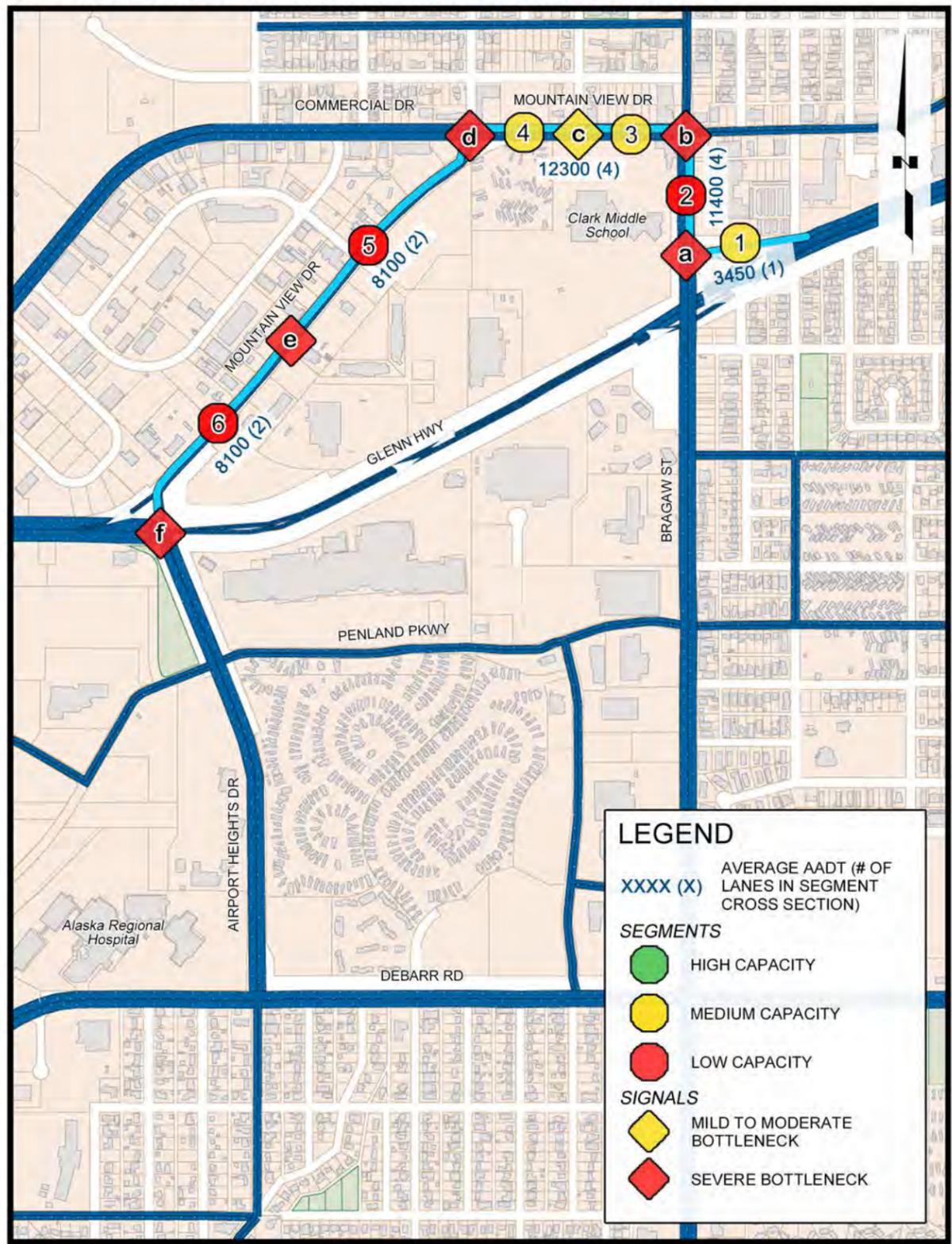
OFF PEAK TRAVEL SPEED THROUGH DETOUR	20 MPH
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY
AIRPORT HEIGHTS DR TO
BRAGAW ST INTERCHANGE
NORTHBOUND DETOUR ROUTE
CAPACITY ANALYSIS**

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

DETOUR SEGMENT AND INTERSECTION CAPACITY



Note: The purpose of this graphic is to show a qualitative comparison of capacity on the segments and intersections along the detour routes. This will help to identify likely locations of bottlenecks, community impacts, and areas of possible improvement.

CAPACITY CRITERIA QUALITIES OF SOUTHBOUND DETOUR SEGMENTS

SEGMENT	1	2	3	4	5	6
LENGTH (MILES)	0.16	0.12	0.12	0.12	0.33	0.23
NUMBER OF LANES IN DETOUR DIRECTION	1	1	2	2	1	1
DRIVEWAY DENSITY	Low	Low	Low	Low	High	High
MEDIAN TYPE	Closed	TWLT	TWLT	TWLT	TWLT	TWLT
OTHER DESIGN FEATURES (SEE NOTE)	-	-	30 MPH SPEED LIMIT	30 MPH SPEED LIMIT	-	-
AVERAGE AADT (2015 - 2017)	3,450	11,400	12,300	12,300	8,100	8,100
SEGMENT DETOUR CAPACITY RATING	★★	★	★★★	★★★	★	★

COMMUNITY IMPACT	1	2	3	4	5	6
COMMUNITY IMPACT	Low	Medium	Medium	Medium	Medium	Medium

Note: Standard design features include posted speed limits of 35 mph or greater, lanes 12 ft wide or greater, shoulders 6 ft wide or greater, and level terrain. Unless otherwise notes, the segment has standard design features.

CAPACITY CRITERIA QUALITIES OF SIGNALS ON SOUTHBOUND DETOUR

SIGNAL	a	b	c	d	e	f
NUMBER OF LANES IN DETOUR DIRECTION	1	1	2	1	1	1
DETOUR APPROACH ON MAJOR ROAD?	No	Yes	Yes	Yes	Yes	No
MOVEMENT	Right	Left	Through	Left	Through	Right
LANE REDUCTION (MERGE) PRIOR TO INTERSECTION	No	No	No	Yes	No	No
SIGNAL DETOUR CAPACITY RATING	★	★	★★★	★	★	★

OFF PEAK TRAVEL SPEED THROUGH DETOUR	15 MPH
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FILE DATE/TIME LAYOUT DESIGNED CHECKED DRAFTED

DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON EXISTING ROAD NETWORK

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF DETOUR ROUTE (VPH)	TOTAL DETOUR DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	1,000	1,690	15%
	PM	1,000	5,040	0%
Southbound	AM	1,000	4,510	15%
	PM	1,000	2,120	20%

*Total detour demand is the sum of existing demand on the detour route plus rerouted demand from the Glenn Highway due to closure of the Glenn Highway.

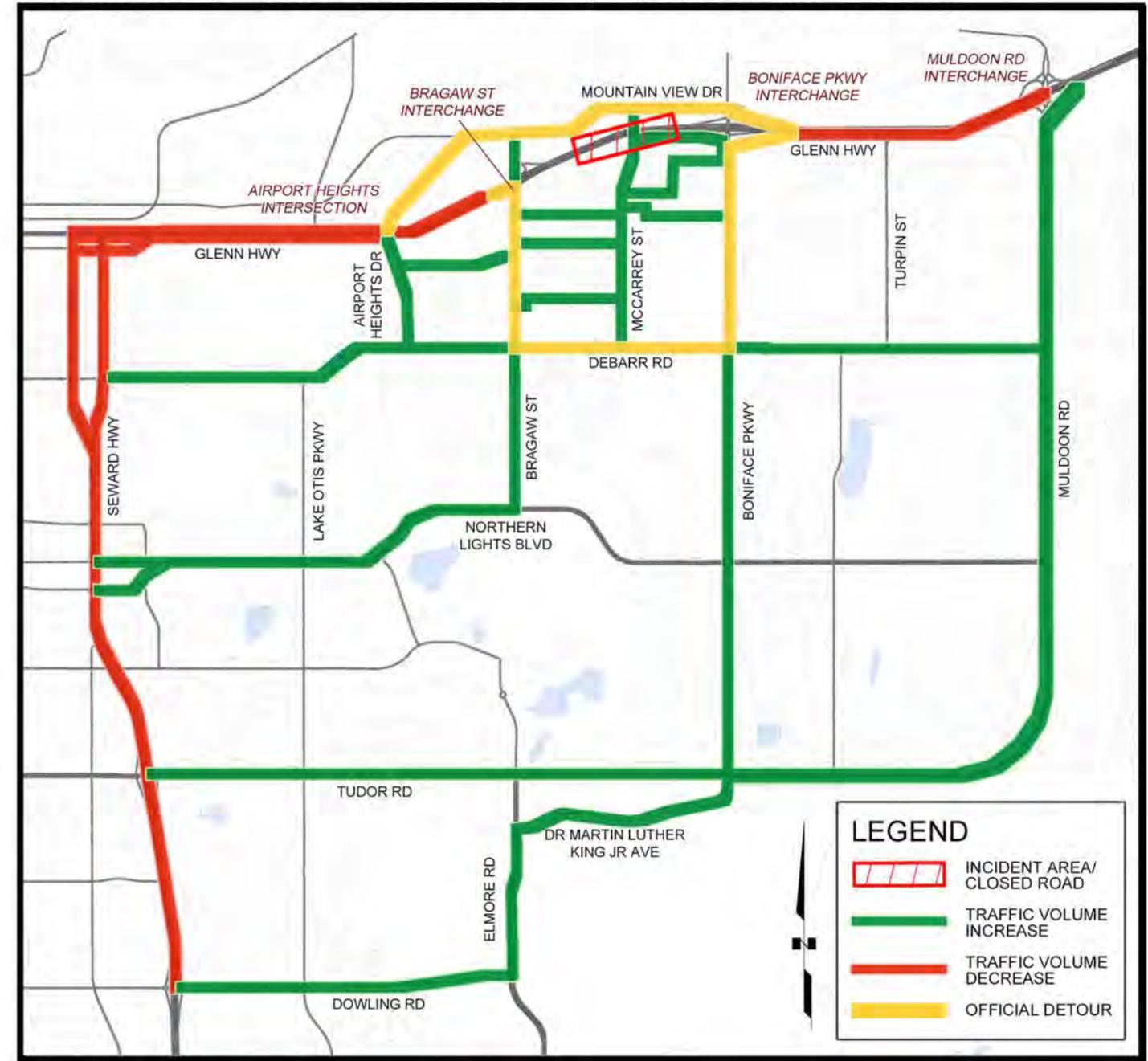
DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON TEMPORARY INFRASTRUCTURE

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF CROSSOVER (VPH)	CROSSOVER DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	2,800	800	100%
	PM	2,800	4,100	70%
Southbound	AM	2,800	4,200	65%
	PM	2,800	1,400	100%

*Crossover demand is the existing directional demand on the Glenn Highway.

Note: Capacity estimates are based on HCM methodology and planning level design with a target performance of LOS D/E. The detour demand is the total volume that is currently using the closed section of highway. Not all of the traffic currently using this section of highway will use the official detour, as shown in the figure to the right. Once the capacity of the detour is met, traffic will find alternative paths.

PREDICTED ALTERNATIVE DETOUR ROUTING DUE TO CLOSURES



Note: Alternative routes are estimated using 2013 Base model of the 2040 AMATS Model. Highlighted routes are routes which are likely to experience over a 1,000 AADT increase or decrease due to redirected traffic.

FILE | DATE/TIME | LAYOUT | DESIGNED | CHECKED | DRAFTED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	TJ2.1A	TJ17.0

DETOUR SEGMENT AND INTERSECTION CAPACITY



Note: The purpose of this graphic is to show a qualitative comparison of capacity on the segments and intersections along the detour routes. This will help to identify likely locations of bottlenecks, community impacts, and areas of possible improvement.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY
BRAGAW ST INTERCHANGE TO
BONIFACE PKWY INTERCHANGE
NORTHBOUND DETOUR ROUTE
CAPACITY ANALYSIS**

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

FILE | DATE/TIME | LAYOUT | DESIGNED | CHECKED | DRAFTED

FILE | DATE/TIME | LAYOUT | DESIGNED | CHECKED | DRAFTED

CAPACITY CRITERIA QUALITIES OF NORTHBOUND DETOUR SEGMENTS

SEGMENT	1	2	3	4	5	6	7	8	9
LENGTH (MILES)	0.24	0.32	0.41	0.26	0.21	0.48	0.60	0.36	0.21
NUMBER OF LANES IN DETOUR DIRECTION	1	2	2	2	2	2	2	2	1
DRIVEWAY DENSITY	Low	Low	High	Low	Low	Low	Low	High	Low
MEDIAN TYPE	Closed	Open	Closed	TWLT	TWLT	TWLT	TWLT	TWLT	Closed
OTHER DESIGN FEATURES (SEE NOTE)	-	-	-	-	-	GRADES > 5%	-	-	-
AVERAGE AADT (2015 - 2017)	2,100	19,100	18,550	21,350	21,350	21,350	21,100	21,900	7,005
SEGMENT DETOUR CAPACITY RATING	★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★	★
COMMUNITY IMPACT	Low	Medium	High	Medium	Medium	Very Low	Low	Low	Low

Note: Standard design features include posted speeds of 35 mph or greater, lanes 12 ft wide or greater, shoulders 6 ft wide or greater, and level terrain. Unless otherwise notes, the segment has standard design features.

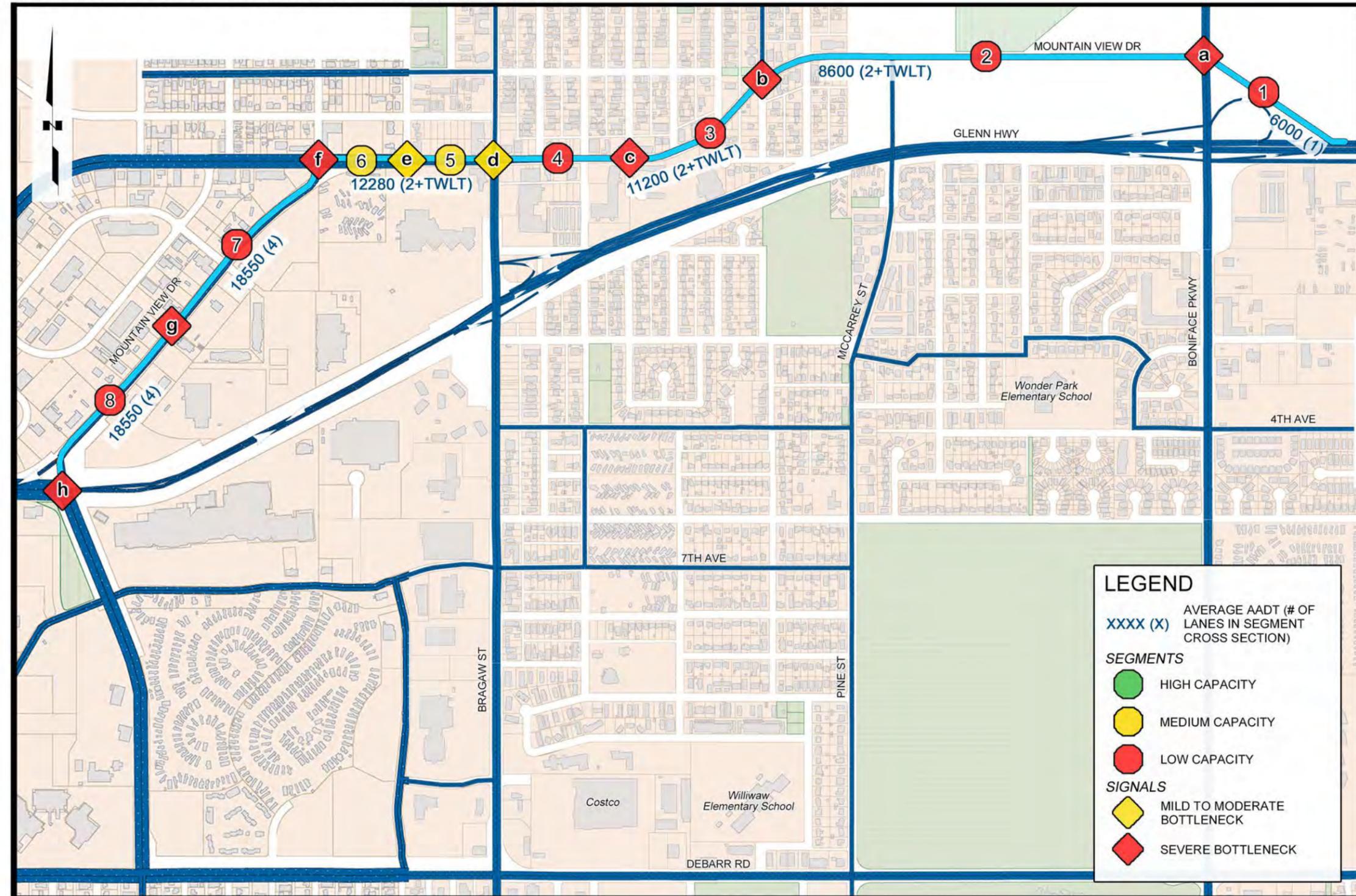
CAPACITY CRITERIA QUALITIES OF SIGNALS ON NORTHBOUND DETOUR

SIGNAL	a	b	c	d	e	f	g
NUMBER OF LANES IN DETOUR DIRECTION	1	2	1	2	2	1	2
DETOUR APPROACH ON MAJOR ROAD?	No	Yes	Yes	Yes	Yes	Yes	Yes
MOVEMENT	Right	Through	Left	Through	Through	Left	Through
LANE REDUCTION (MERGE) PRIOR TO INTERSECTION	No	No	Yes	No	No	Yes	No
SIGNAL DETOUR CAPACITY RATING	★	★★★★	★	★★★★	★★★★	★	★★★★

OFF PEAK TRAVEL SPEED THROUGH DETOUR	25 MPH
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	TJ2.2A	TJ17.0

DETOUR SEGMENT AND INTERSECTION CAPACITY



Note: The purpose of this graphic is to show a qualitative comparison of capacity on the segments and intersections along the detour routes. This will help to identify likely locations of bottlenecks, community impacts, and areas of possible improvement.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY
BRAGAW ST INTERCHANGE TO
BONIFACE PKWY INTERCHANGE
SOUTHBOUND DETOUR ROUTE
CAPACITY ANALYSIS**

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

FILE | DATE/TIME | LAYOUT | DESIGNED | CHECKED | DRAFTED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	TJ2.2B	TJ17.0

CAPACITY CRITERIA QUALITIES OF SOUTHBOUND DETOUR SEGMENTS

SEGMENT	1	2	3	4	5	6	7	8
LENGTH (MILES)	0.31	0.61	0.21	0.19	0.12	0.12	0.33	0.23
NUMBER OF LANES IN DETOUR DIRECTION	1	1	1	1	2	2	1	1
DRIVEWAY DENSITY	Low	High	Low	Low	Low	Low	High	High
MEDIAN TYPE	Closed	TWLT	TWLT	TWLT	TWLT	TWLT	TWLT	TWLT
OTHER DESIGN FEATURES (SEE NOTE)	-	-	30 MPH SPEED LIMIT	-	-			
AVERAGE AADT (2015 - 2017)	6,000	8,600	11,200	11,200	12,280	12,280	8,100	8,100
SEGMENT DETOUR CAPACITY RATING	★	★	★	★	★★★★	★★★★	★	★
COMMUNITY IMPACT	Low	Low	High	High	Medium	Medium	Medium	Medium

Note: Standard design features include posted speeds of 35 mph or greater, lanes 12 ft wide or greater, shoulders 6 ft wide or greater, and level terrain. Unless otherwise notes, the segment has standard design features.

CAPACITY CRITERIA QUALITIES OF SIGNALS ON SOUTHBOUND DETOUR

SIGNAL	a	b	c	d	e	f	g	h
NUMBER OF LANES IN DETOUR DIRECTION	1	1	1	2	2	1	1	1
DETOUR APPROACH ON MAJOR ROAD?	No	Yes	Yes	Yes	Yes	Yes	Yes	No
MOVEMENT	Through	Through	Through	Through	Through	Left	Through	Right
LANE REDUCTION (MERGE) PRIOR TO INTERSECTION	No	No	No	No	No	Yes	No	No
SIGNAL DETOUR CAPACITY RATING	★	★	★	★★★★	★★★★	★	★	★

OFF PEAK TRAVEL SPEED THROUGH DETOUR	20 MPH
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STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY BRAGAW ST INTERCHANGE TO BONIFACE PKWY INTERCHANGE SOUTHBOUND DETOUR ROUTE CAPACITY ANALYSIS	PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3909 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 348-2373 CERT. OF ALTH. NO. ASCL 1102
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FILE | DATE/TIME | LAYOUT | DESIGNED | CHECKED | DRAFTED

FILE | DATE/TIME | LAYOUT | DESIGNED | CHECKED | DRAFTED

DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON EXISTING ROAD NETWORK

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF DETOUR ROUTE (VPH)	TOTAL DETOUR DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	1,220	960	100%
	PM	1,220	4,300	25%
Southbound	AM	1,000	4,780	10%
	PM	1,000	2,920	0%

*Total detour demand is the sum of existing demand on the detour route plus rerouted demand from the Glenn Highway due to closure of the Glenn Highway.

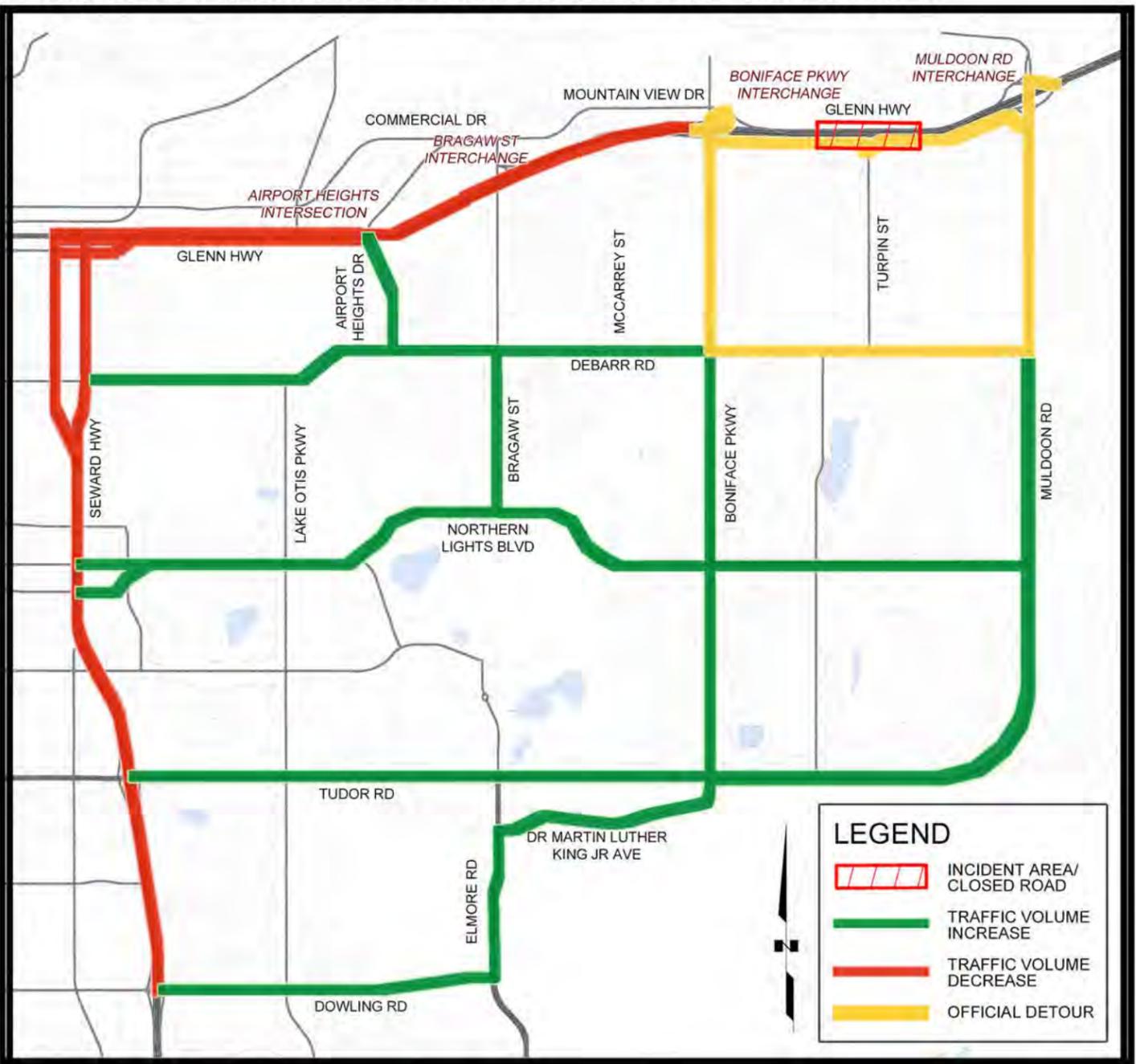
DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON TEMPORARY INFRASTRUCTURE

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF CROSSOVER (VPH)	CROSSOVER DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	2,800	700	100%
	PM	2,800	4,000	70%
Southbound	AM	2,800	4,100	70%
	PM	2,800	1,300	100%

*Crossover demand is the existing directional demand on the Glenn Highway.

Note: Capacity estimates are based on HCM methodology and planning level design with a target performance of LOS D/E. The detour demand is the total volume that is currently using the closed section of highway. Not all of the traffic currently using this section of highway will use the official detour, as shown in the figure to the right. Once the capacity of the detour is met, traffic will find alternative paths.

PREDICTED ALTERNATIVE DETOUR ROUTING DUE TO CLOSURES



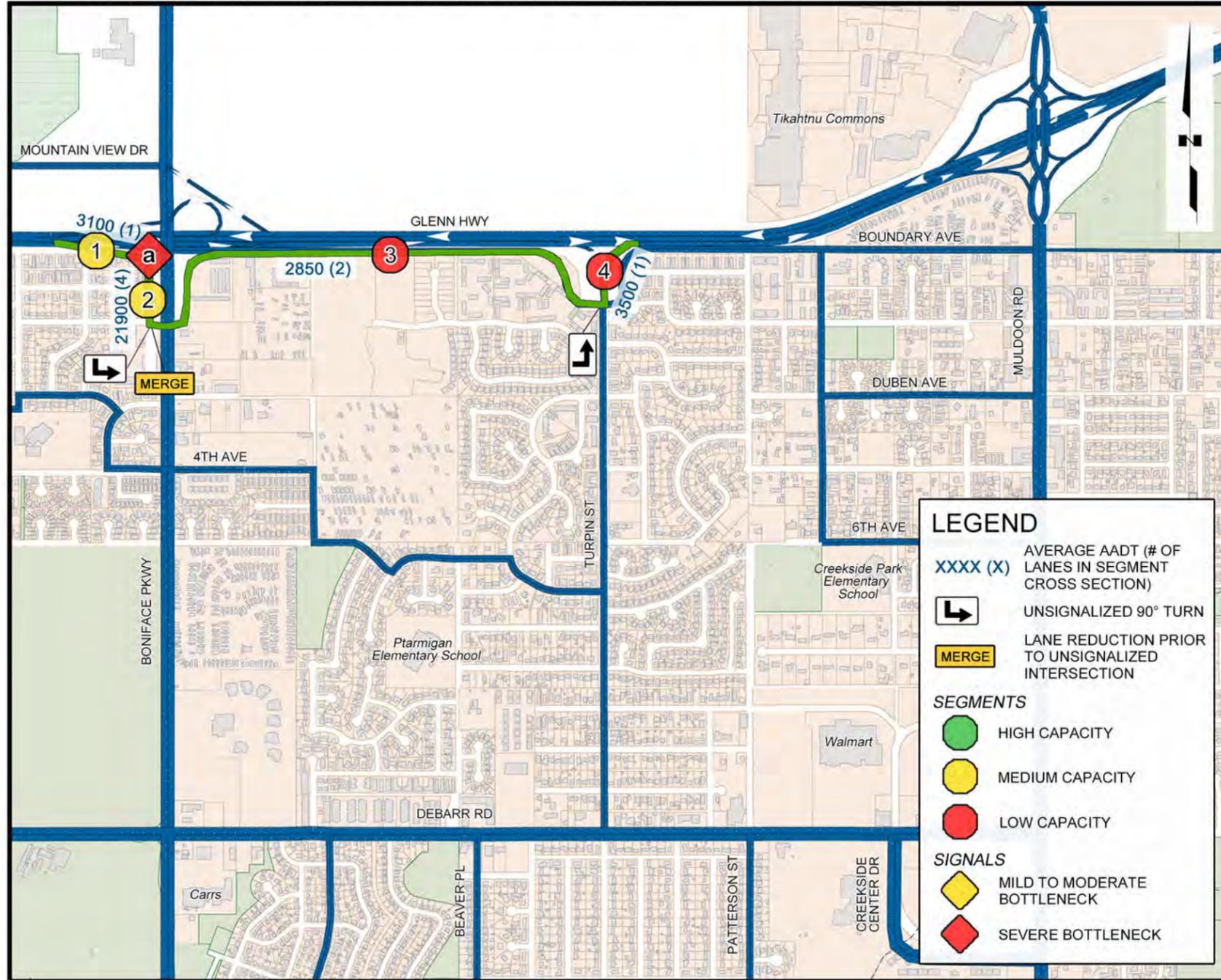
Note: Alternative routes are estimated using 2013 Base model of the 2040 AMATS Model. Highlighted routes are routes which are likely to experience over a 1,000 AADT increase or decrease due to redirected traffic.

PLANS DEVELOPED BY:
 KINNEY ENGINEERING, LLC
 3909 ARCTIC BLVD, SUITE 400
 ANCHORAGE, ALASKA 99503
 (907) 346-2373
 CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

**GLENN HIGHWAY
 BONIFACE PKWY TO MULDOON
 ROAD INTERCHANGE
 DETOUR ROUTE CAPACITY
 ANALYSIS**

DETOUR SEGMENT AND INTERSECTION CAPACITY



Note: The purpose of this graphic is to show a qualitative comparison of capacity on the segments and intersections along the detour routes. This will help to identify likely locations of bottlenecks, community impacts, and areas of possible improvement.

CAPACITY CRITERIA QUALITIES OF NORTHBOUND DETOUR SEGMENTS

SEGMENT	1	2	3	4
LENGTH (MILES)	0.24	0.11	0.90	0.20
NUMBER OF LANES IN DETOUR DIRECTION	1	2	1	1
DRIVEWAY DENSITY	Low	Low	Low	Low
MEDIAN TYPE	Closed	Closed	Open	Closed
OTHER DESIGN FEATURES (SEE NOTE)	-	-	-	-
AVERAGE AADT (2015 - 2017)	3,100	21,900	2,850	3,500
SEGMENT DETOUR CAPACITY RATING	★	★★★★	★	★
COMMUNITY IMPACT	Low	Low	Low	Low

Note: Standard design features include posted speeds of 35 mph or greater, lanes 12 ft wide or greater, shoulders 6 ft wide or greater, and level terrain. Unless otherwise notes, the segment has standard design features.

CAPACITY CRITERIA QUALITIES OF SIGNALS ON NORTHBOUND DETOUR

SIGNAL	a
NUMBER OF LANES IN DETOUR DIRECTION	1
DETOUR APPROACH ON MAJOR ROAD?	No
MOVEMENT	Right
LANE REDUCTION (MERGE) PRIOR TO INTERSECTION	No
SIGNAL DETOUR CAPACITY RATING	★

OFF PEAK TRAVEL SPEED THROUGH DETOUR	30 MPH
--------------------------------------	--------

LEGEND

XXXX (X) AVERAGE AADT (# OF LANES IN SEGMENT CROSS SECTION)

↳ UNSIGNALIZED 90° TURN

MERGE LANE REDUCTION PRIOR TO UNSIGNALIZED INTERSECTION

SEGMENTS

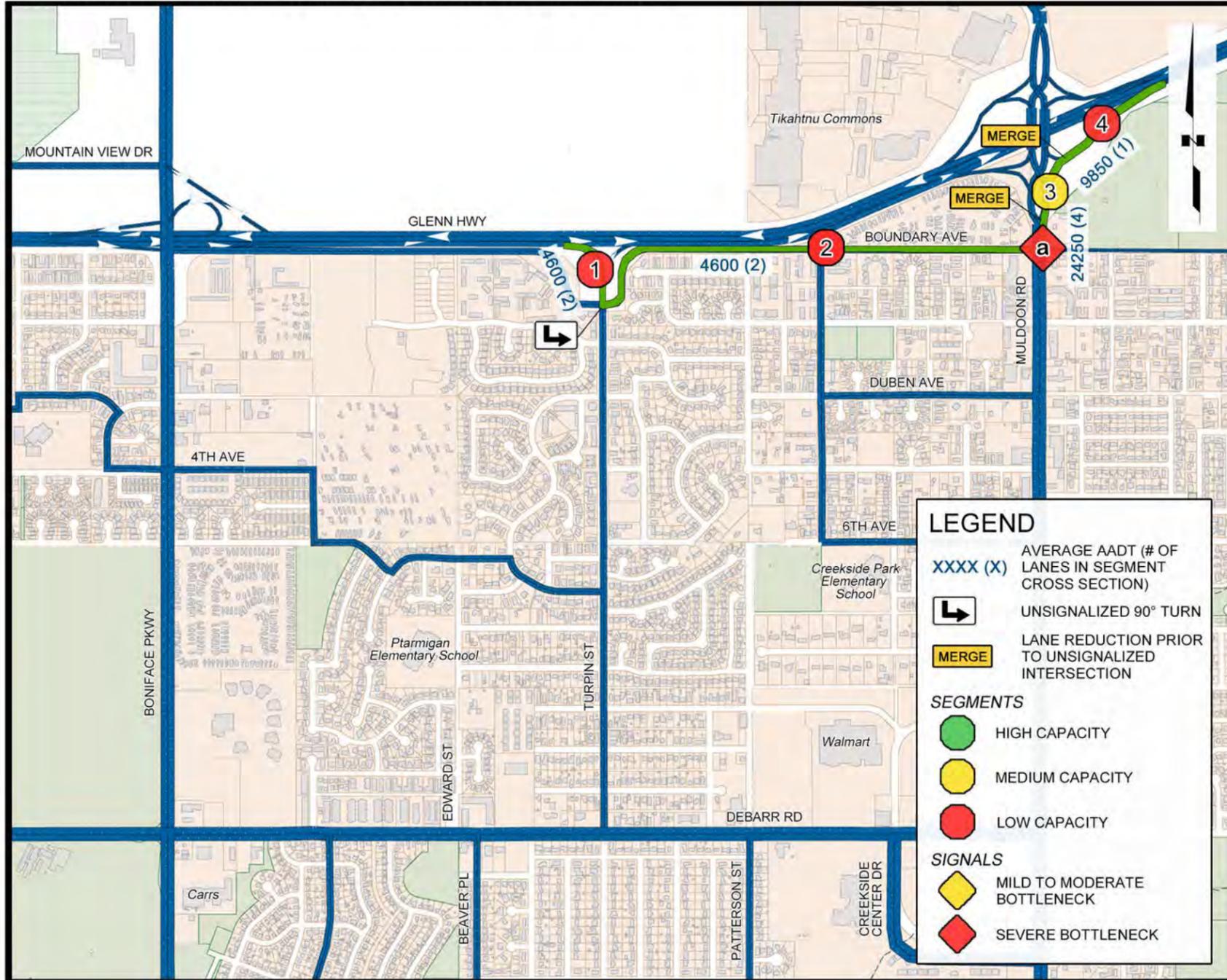
- HIGH CAPACITY
- MEDIUM CAPACITY
- LOW CAPACITY

SIGNALS

- ◆ MILD TO MODERATE BOTTLENECK
- ◆ SEVERE BOTTLENECK

FILE DATE/TIME LAYOUT DESIGNED CHECKED DRAFTED

DETOUR SEGMENT AND INTERSECTION CAPACITY



Note: The purpose of this graphic is to show a qualitative comparison of capacity on the segments and intersections along the detour routes. This will help to identify likely locations of bottlenecks, community impacts, and areas of possible improvement.

CAPACITY CRITERIA QUALITIES OF NORTHBOUND DETOUR SEGMENTS

SEGMENT	1	2	3	4
LENGTH (MILES)	0.19	0.80	0.10	0.32
NUMBER OF LANES IN DETOUR DIRECTION	1	1	2	1
DRIVEWAY DENSITY	Low	Low	Low	Low
MEDIAN TYPE	Open	Open	Closed	Closed
OTHER DESIGN FEATURES (SEE NOTE)	-	25 MPH SPEED LIMIT	-	-
AVERAGE AADT (2015 - 2017)	3,500	4,600	24,250	9,850
SEGMENT DETOUR CAPACITY RATING	★	★	★★★	★
COMMUNITY IMPACT	Low	Low	Low	Low

Note: Standard design features include posted speeds of 35 mph or greater, lanes 12 ft wide or greater, shoulders 6 ft wide or greater, and level terrain. Unless otherwise notes, the segment has standard design features.

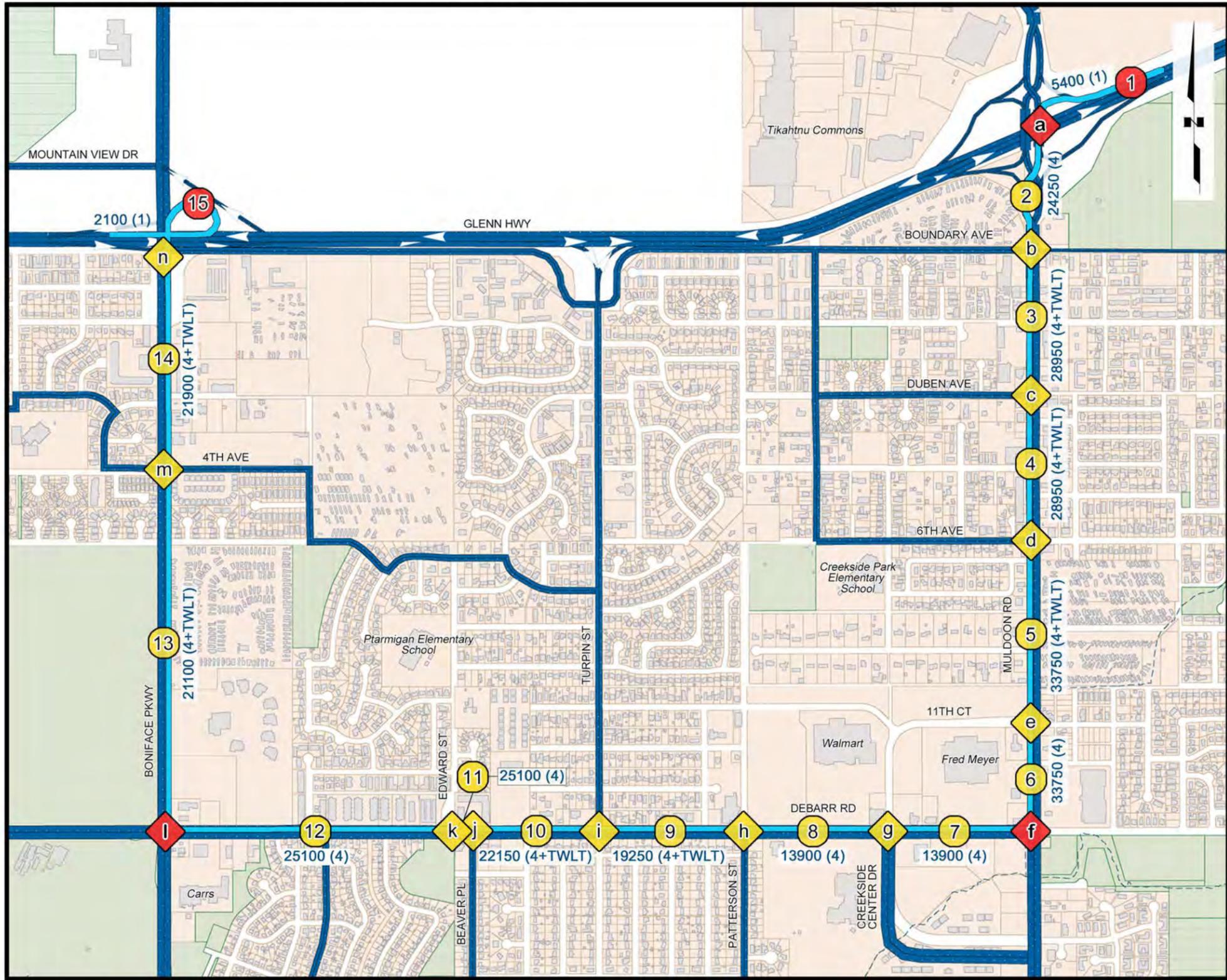
CAPACITY CRITERIA QUALITIES OF SIGNALS ON NORTHBOUND DETOUR

SIGNAL	a
NUMBER OF LANES IN DETOUR DIRECTION	1
DETOUR APPROACH ON MAJOR ROAD?	No
MOVEMENT	Left
LANE REDUCTION (MERGE) PRIOR TO INTERSECTION	No
SIGNAL DETOUR CAPACITY RATING	★

OFF PEAK TRAVEL SPEED THROUGH DETOUR	20 MPH
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	TJ3.2A	TJ17.0

DETOUR SEGMENT AND INTERSECTION CAPACITY



LEGEND

XXXX (X) AVERAGE AADT (# OF LANES IN SEGMENT CROSS SECTION)

SEGMENTS

- Green circle: HIGH CAPACITY
- Yellow circle: MEDIUM CAPACITY
- Red circle: LOW CAPACITY

SIGNALS

- Yellow diamond: MILD TO MODERATE BOTTLENECK
- Red diamond: SEVERE BOTTLENECK

Note: The purpose of this graphic is to show a qualitative comparison of capacity on the segments and intersections along the detour routes. This will help to identify likely locations of bottlenecks, community impacts, and areas of possible improvement.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY BONIFACE PKWY TO MULDOON RD INTERCHANGE SOUTHBOUND DETOUR ROUTE CAPACITY ANALYSIS

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

FILE | DATE/TIME | LAYOUT | DESIGNED | CHECKED | DRAFTED

FILE DATE/TIME LAYOUT DESIGNED CHECKED DRAFTED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	TJ3.2B	TJ17.0

CAPACITY CRITERIA QUALITIES OF SOUTHBOUND DETOUR SEGMENTS

SEGMENT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
LENGTH (MILES)	0.29	0.25	0.24	0.24	0.30	0.17	0.23	0.23	0.24	0.20	0.03	0.47	0.60	0.37	0.35	
NUMBER OF LANES IN DETOUR DIRECTION	1	2	2	2	2	2	2	2	2	2	2	2	2	2	1	
DRIVEWAY DENSITY	Low	Low	Low	Low	High	High	High	High	High	High	Low	Low	High	Low	Low	
MEDIAN TYPE	Closed	Closed	TWLT	TWLT	TWLT	Closed	Closed	Closed	TWLT	TWLT	Closed	Closed	TWLT	TWLT	Closed	
OTHER DESIGN FEATURES (SEE NOTE)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
AVERAGE AADT (2015 - 2017)	5,400	24,250	28,950	28,950	33,750	33,750	13,900	13,900	19,250	22,150	25,100	25,100	21,100	21,900	2,100	
SEGMENT DETOUR CAPACITY RATING	★	★★★★	★★★	★★★	★★★	★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★
COMMUNITY IMPACT	Low	Medium	High	High	Medium	High	Medium	Medium	Medium	Medium	Medium	Medium	Low	Medium	Low	

Note: Standard design features include posted speeds of 35 mph or greater, lanes 12 ft wide or greater, shoulders 6 ft wide or greater, and level terrain. Unless otherwise notes, the segment has standard design features.

CAPACITY CRITERIA QUALITIES OF SIGNALS ON SOUTHBOUND DETOUR

SIGNAL	a	b	c	d	e	f	g	h	i	j	k	l	m	n
NUMBER OF LANES IN DETOUR DIRECTION	2	2	2	2	2	1	2	2	2	2	2	1	2	2
DETOUR APPROACH ON MAJOR ROAD?	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MOVEMENT	Left	Through	Through	Through	Through	Right	Through	Through	Through	Through	Through	Right	Through	Through
LANE REDUCTION (MERGE) PRIOR TO INTERSECTION	No	No	No	No	No	Yes	No	No	No	No	No	Yes	No	No
SIGNAL DETOUR CAPACITY RATING	★	★★★★	★★★★	★★★★	★★★★	★	★★★★	★★★★	★★★★	★★★★	★★★★	★	★★★★	★★★★

OFF PEAK TRAVEL SPEED THROUGH DETOUR	25 MPH
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STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY BONIFACE PKWY TO MULDOON RD INTERCHANGE SOUTHBOUND DETOUR ROUTE CAPACITY ANALYSIS	PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3905 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF ALTH. NO. ASCL 1102
--	--

DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON EXISTING ROAD NETWORK

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF DETOUR ROUTE (VPH)	TOTAL DETOUR DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	0	900	0%
	PM	0	4,800	0%
Southbound	AM	0	4,900	0%
	PM	0	1,600	0%

*Total detour demand is the sum of existing demand on the detour route plus rerouted demand from the Glenn Highway due to closure of the Glenn Highway

DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON TEMPORARY INFRASTRUCTURE

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF CROSSOVER (VPH)	CROSSOVER DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	2,800	900	100%
	PM	2,800	4,800	60%
Southbound	AM	2,800	4,900	55%
	PM	2,800	1,600	100%

*Crossover demand is the existing directional demand on the Glenn Highway

Note: Capacity estimates are based on HCM methodology and planning level design with a target performance of LOS D/E. The detour demand is the total volume that is currently using the closed section of highway. Not all of the traffic currently using this section of highway will use the official detour, as shown in the figure to the right. Once the capacity of the detour is met, traffic will find alternative paths.

PREDICTED ALTERNATIVE DETOUR ROUTING DUE TO CLOSURES

NO ALTERNATIVE DETOUR ROUTES ARE AVAILABLE IN THIS SEGMENT

Note: Alternative routes are estimated using 2013 Base model of the 2040 AMATS Model. Highlighted routes are routes which are likely to experience over a 1,000 AADT increase or decrease due to redirected traffic.

FILE | DATE/TIME | LAYOUT | DESIGNED | CHECKED | DRAFTED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	TJ5.0	TJ17.0

DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON EXISTING ROAD NETWORK

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF DETOUR ROUTE (VPH)	TOTAL DETOUR DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	1,400	820	100%
	PM	1,400	4,490	30%
Southbound	AM	0	4,500	0%
	PM	0	1,500	0%

*Total detour demand is the sum of existing demand on the detour route plus rerouted demand from the Glenn Highway due to closure of the Glenn Highway

DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON TEMPORARY INFRASTRUCTURE

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF CROSSOVER (VPH)	CROSSOVER DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	2,800	800	100%
	PM	2,800	4,400	65%
Southbound	AM	2,800	4,500	60%
	PM	2,800	1,500	100%

*Crossover demand is the existing directional demand on the Glenn Highway

Note: Capacity estimates are based on HCM methodology and planning level design with a target performance of LOS D/E. The detour demand is the total volume that is currently using the closed section of highway. Not all of the traffic currently using this section of highway will use the official detour, as shown in the figure to the right. Once the capacity of the detour is met, traffic will find alternative paths.

PREDICTED ALTERNATIVE DETOUR ROUTING DUE TO CLOSURES

NO ALTERNATIVE DETOUR ROUTES ARE AVAILABLE IN THIS SEGMENT

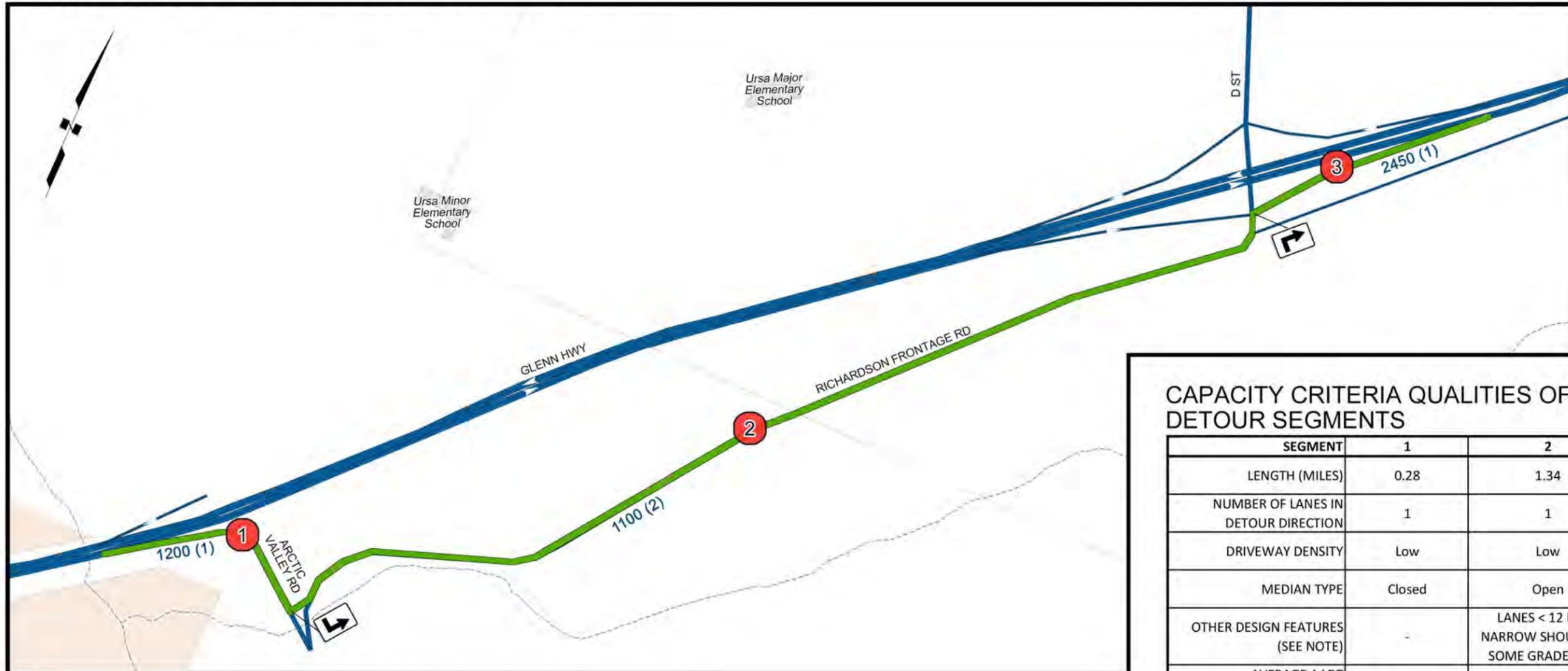
Note: Alternative routes are estimated using 2013 Base model of the 2040 AMATS Model. Highlighted routes are routes which are likely to experience over a 1,000 AADT increase or decrease due to redirected traffic.

FILE | DATE/TIME | LAYOUT | DESIGNED | CHECKED | DRAFTED

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3905 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 348-2373 CERT. OF ALTH. NO. ASCL 1102	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY ARCTIC VALLEY TO JBER-RICHARDSON INTERCHANGE DETOUR ROUTE CAPACITY ANALYSIS
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	TJ5.1	TJ17.0

DETOUR SEGMENT AND INTERSECTION CAPACITY



CAPACITY CRITERIA QUALITIES OF NORTHBOUND DETOUR SEGMENTS

SEGMENT	1	2	3
LENGTH (MILES)	0.28	1.34	0.25
NUMBER OF LANES IN DETOUR DIRECTION	1	1	1
DRIVEWAY DENSITY	Low	Low	Low
MEDIAN TYPE	Closed	Open	Open
OTHER DESIGN FEATURES (SEE NOTE)	-	LANES < 12 FEET, NARROW SHOULDERS, SOME GRADES > 5%	NARROW SHOULDER
AVERAGE AADT (2015 - 2017)	1,200	1,100	2,449
SEGMENT DETOUR CAPACITY RATING	★	★	★
COMMUNITY IMPACT	Very Low	Very Low	Very Low

OFF PEAK TRAVEL SPEED THROUGH DETOUR	30 MPH
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LEGEND

XXXX (X) AVERAGE AADT (# OF LANES IN SEGMENT CROSS SECTION)

↳ UNSIGNALIZED 90° TURN

SEGMENTS

- HIGH CAPACITY
- MEDIUM CAPACITY
- LOW CAPACITY

Note: The purpose of this graphic is to show a qualitative comparison of capacity on the segments and intersections along the detour routes. This will help to identify likely locations of bottlenecks, community impacts, and areas of possible improvement.

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 348-2373
CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

GLENN HIGHWAY
ARCTIC VALLEY TO
JBER-RICHARDSON
INTERCHANGE NORTHBOUND
DETOUR ROUTE CAPACITY
ANALYSIS

FILE DATE/TIME LAYOUT DESIGNED CHECKED DRAFTED

DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON EXISTING ROAD NETWORK

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF DETOUR ROUTE (VPH)	TOTAL DETOUR DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	1,400	800	100%
	PM	1,400	4,200	35%
Southbound	AM	0	4,300	0%
	PM	0	1,400	0%

*Total detour demand is the sum of existing demand on the detour route plus rerouted demand from the Glenn Highway due to closure of the Glenn Highway

DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON TEMPORARY INFRASTRUCTURE

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF CROSSOVER (VPH)	CROSSOVER DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	2,800	800	100%
	PM	2,800	4,200	65%
Southbound	AM	2,800	4,300	65%
	PM	2,800	1,400	100%

*Crossover demand is the existing directional demand on the Glenn Highway

Note: Capacity estimates are based on HCM methodology and planning level design with a target performance of LOS D/E. The detour demand is the total volume that is currently using the closed section of highway. Not all of the traffic currently using this section of highway will use the official detour, as shown in the figure to the right. Once the capacity of the detour is met, traffic will find alternative paths.

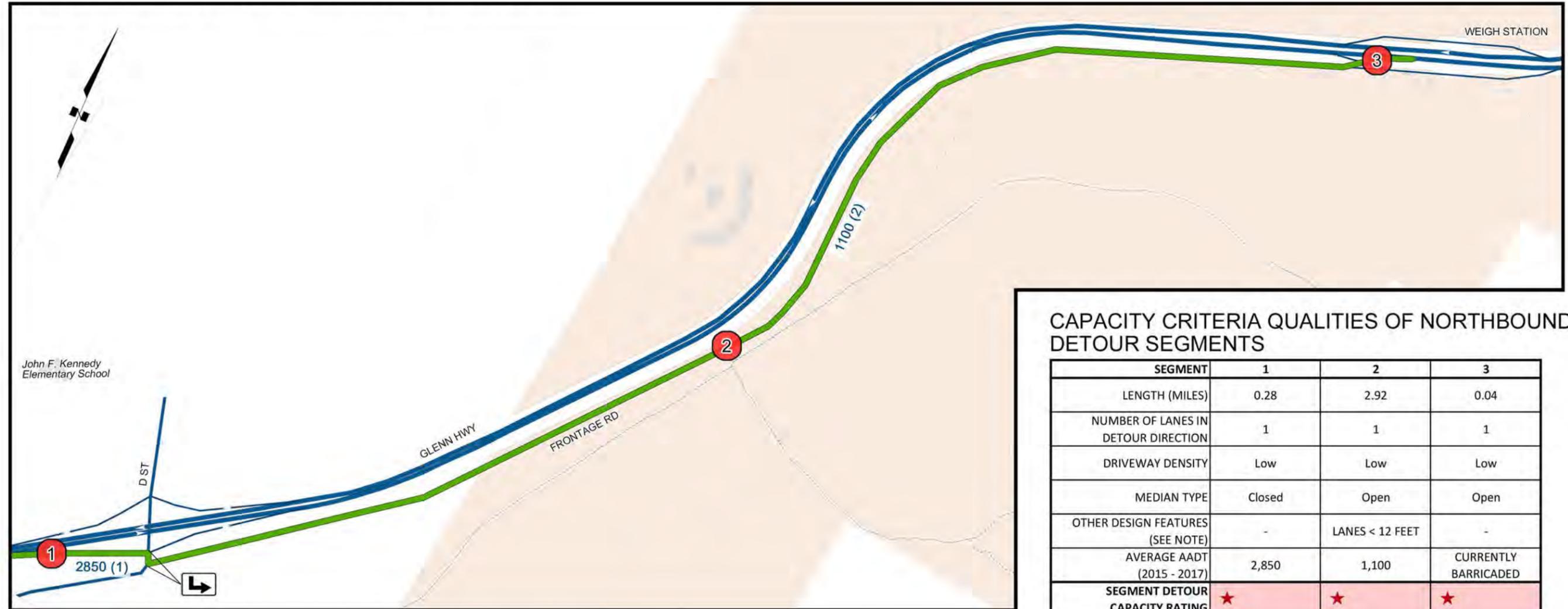
PREDICTED ALTERNATIVE DETOUR ROUTING DUE TO CLOSURES

NO ALTERNATIVE DETOUR ROUTES ARE AVAILABLE IN THIS SEGMENT

Note: Alternative routes are estimated using 2013 Base model of the 2040 AMATS Model. Highlighted routes are routes which are likely to experience over a 1,000 AADT increase or decrease due to redirected traffic.

FILE | DATE/TIME | LAYOUT | DESIGNED | CHECKED | DRAFTED

DETOUR SEGMENT AND INTERSECTION CAPACITY



CAPACITY CRITERIA QUALITIES OF NORTHBOUND DETOUR SEGMENTS

SEGMENT	1	2	3
LENGTH (MILES)	0.28	2.92	0.04
NUMBER OF LANES IN DETOUR DIRECTION	1	1	1
DRIVEWAY DENSITY	Low	Low	Low
MEDIAN TYPE	Closed	Open	Open
OTHER DESIGN FEATURES (SEE NOTE)	-	LANES < 12 FEET	-
AVERAGE AADT (2015 - 2017)	2,850	1,100	CURRENTLY BARRICADED
SEGMENT DETOUR CAPACITY RATING	★	★	★
COMMUNITY IMPACT	Very Low	Very Low	Very Low

OFF PEAK TRAVEL SPEED THROUGH DETOUR	25 MPH
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Note: The purpose of this graphic is to show a qualitative comparison of capacity on the segments and intersections along the detour routes. This will help to identify likely locations of bottlenecks, community impacts, and areas of possible improvement.

LEGEND

XXXX (X) AVERAGE AADT (# OF LANES IN SEGMENT CROSS SECTION)

↙ UNSIGNALIZED 90° TURN

SEGMENTS

- HIGH CAPACITY
- LOW TO MEDIUM CAPACITY
- LOW CAPACITY

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY
JBER-RICHARDSON
INTERCHANGE TO WEIGH
STATION NORTHBOUND
DETOUR ROUTE
CAPACITY ANALYSIS**

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

FILE DATE/TIME LAYOUT DESIGNED CHECKED DRAFTED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	TJ7.0	TJ17.0

DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON EXISTING ROAD NETWORK

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF DETOUR ROUTE (VPH)	TOTAL DETOUR DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	0	800	0%
	PM	0	4,200	0%
Southbound	AM	0	4,300	0%
	PM	0	1,400	0%

*Total detour demand is the sum of existing demand on the detour route plus rerouted demand from the Glenn Highway due to closure of the Glenn Highway

DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON TEMPORARY INFRASTRUCTURE

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF CROSSOVER (VPH)	CROSSOVER DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	2,800	800	100%
	PM	2,800	4,200	65%
Southbound	AM	2,800	4,300	65%
	PM	2,800	1,400	100%

*Crossover demand is the existing directional demand on the Glenn Highway

Note: Capacity estimates are based on HCM methodology and planning level design with a target performance of LOS D/E. The detour demand is the total volume that is currently using the closed section of highway. Not all of the traffic currently using this section of highway will use the official detour, as shown in the figure to the right. Once the capacity of the detour is met, traffic will find alternative paths.

PREDICTED ALTERNATIVE DETOUR ROUTING DUE TO CLOSURES

NO ALTERNATIVE DETOUR ROUTES ARE AVAILABLE IN THIS SEGMENT

Note: Alternative routes are estimated using 2013 Base model of the 2040 AMATS Model. Highlighted routes are routes which are likely to experience over a 1,000 AADT increase or decrease due to redirected traffic.

FILE DATE/TIME LAYOUT DESIGNED CHECKED DRAFTED

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3905 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 348-2373 CERT. OF ALTH. NO. ASCL 1102	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY WEIGH STATION TO EAGLE RIVER LP RD / HILAND INTERCHANGE DETOUR ROUTE CAPACITY ANALYSIS
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DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON EXISTING ROAD NETWORK

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF DETOUR ROUTE (VPH)	TOTAL DETOUR DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	1,220	830	100%
	PM	1,220	4,330	15%
Southbound	AM	1,220	4,330	20%
	PM	1,220	1,470	80%

*Total detour demand is the sum of existing demand on the detour route plus rerouted demand from the Glenn Highway due to closure of the Glenn Highway.

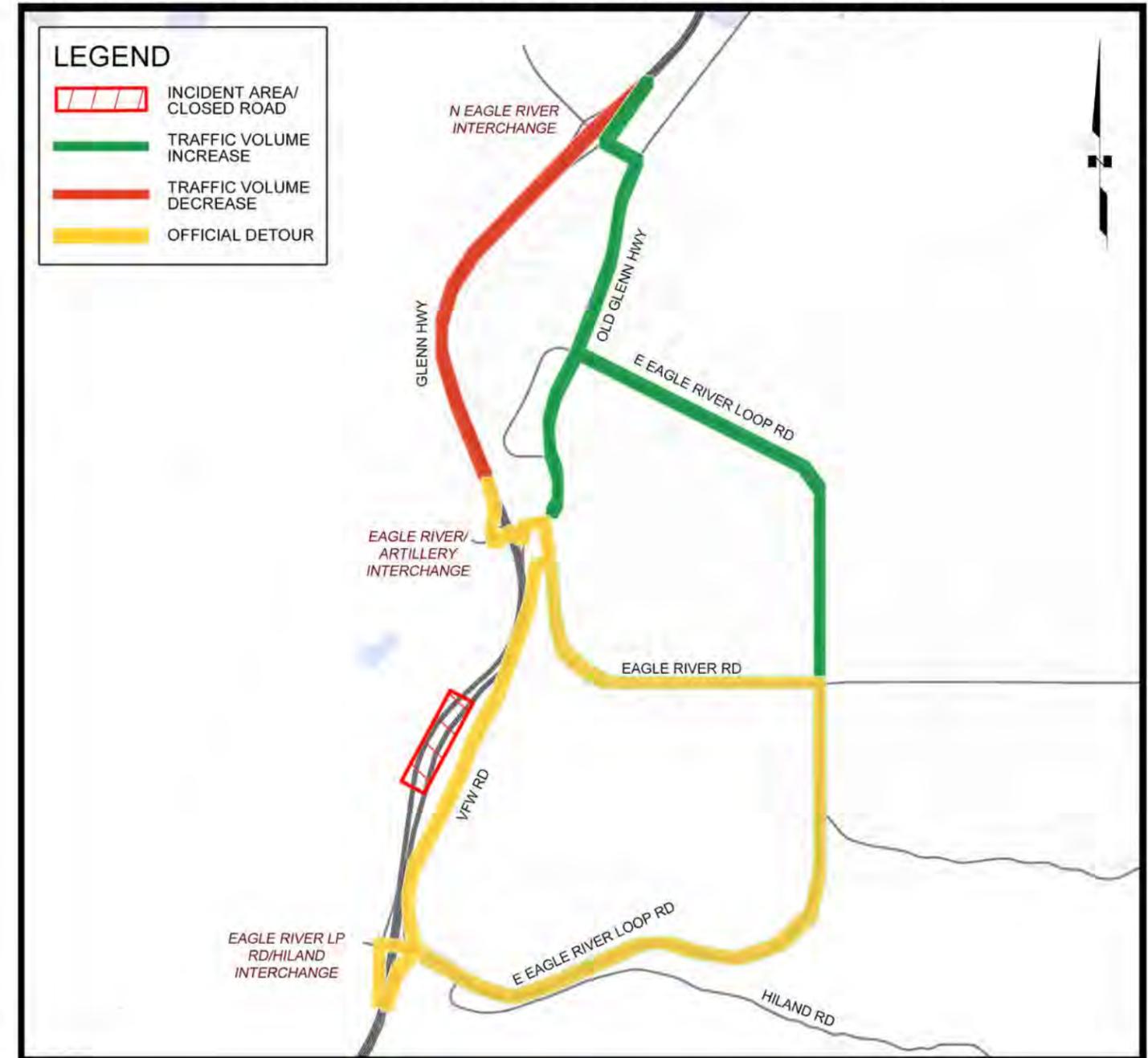
DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON TEMPORARY INFRASTRUCTURE

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF CROSSOVER (VPH)	CROSSOVER DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	2,800	700	100%
	PM	2,800	3,700	75%
Southbound	AM	2,800	3,800	75%
	PM	2,800	1,200	100%

*Crossover demand is the existing directional demand on the Glenn Highway.

Note: Capacity estimates are based on HCM methodology and planning level design with a target performance of LOS D/E. The detour demand is the total volume that is currently using the closed section of highway. Not all of the traffic currently using this section of highway will use the official detour, as shown in the figure to the right. Once the capacity of the detour is met, traffic will find alternative paths.

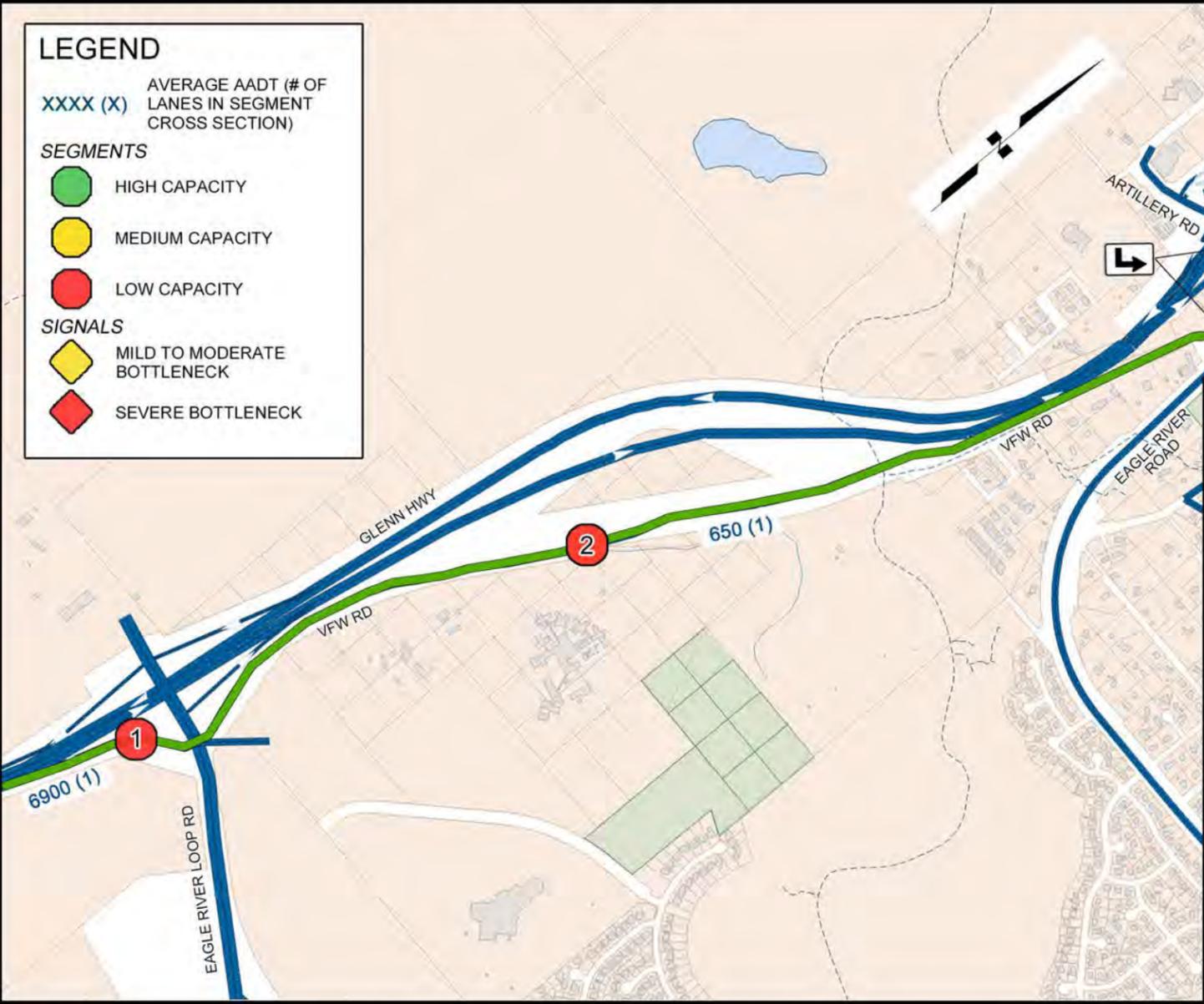
PREDICTED ALTERNATIVE DETOUR ROUTING DUE TO CLOSURES



Note: Alternative routes are estimated using 2013 Base model of the 2040 AMATS Model. Highlighted routes are routes which are likely to experience over a 1,000 AADT increase or decrease due to redirected traffic.

FILE | DATE/TIME | LAYOUT | DESIGNED | CHECKED | DRAFTED

DETOUR SEGMENT AND INTERSECTION CAPACITY



Note: The purpose of this graphic is to show a qualitative comparison of capacity on the segments and intersections along the detour routes. This will help to identify likely locations of bottlenecks, community impacts, and areas of possible improvement.

CAPACITY CRITERIA QUALITIES OF NORTHBOUND DETOUR SEGMENTS

SEGMENT	1	2	3	4	5
LENGTH (MILES)	0.25	1.69	0.15	0.05	0.15
NUMBER OF LANES IN DETOUR DIRECTION	1	1	1	1	1
DRIVEWAY DENSITY	Low	Low	Low	High	Low
MEDIAN TYPE	Closed	Open	Closed	Open	Closed
OTHER DESIGN FEATURES (SEE NOTE)	-	NARROW SHOULDERS, SOME GRADES >5%	-	-	NARROW SHOULDERS
AVERAGE AADT (2015 - 2017)	6,905	650	8,900	17,334	1,524
SEGMENT DETOUR CAPACITY RATING	★	★	★	★	★★
COMMUNITY IMPACT	Low	Low	Low	Medium	Low

Note: Standard design features include posted speed limits of 35 mph or greater, lanes 12 ft wide or greater, shoulders 6 ft wide or greater, and level terrain. Unless otherwise notes, the segment has standard design features.

CAPACITY CRITERIA QUALITIES OF SIGNALS ON NORTHBOUND DETOUR

SIGNAL	a
NUMBER OF LANES IN DETOUR DIRECTION	1
DETOUR APPROACH ON MAJOR ROAD?	No
MOVEMENT	Left
LANE REDUCTION (MERGE) PRIOR TO INTERSECTION	No
SIGNAL DETOUR CAPACITY RATING	★

OFF PEAK TRAVEL SPEED THROUGH DETOUR	20 MPH
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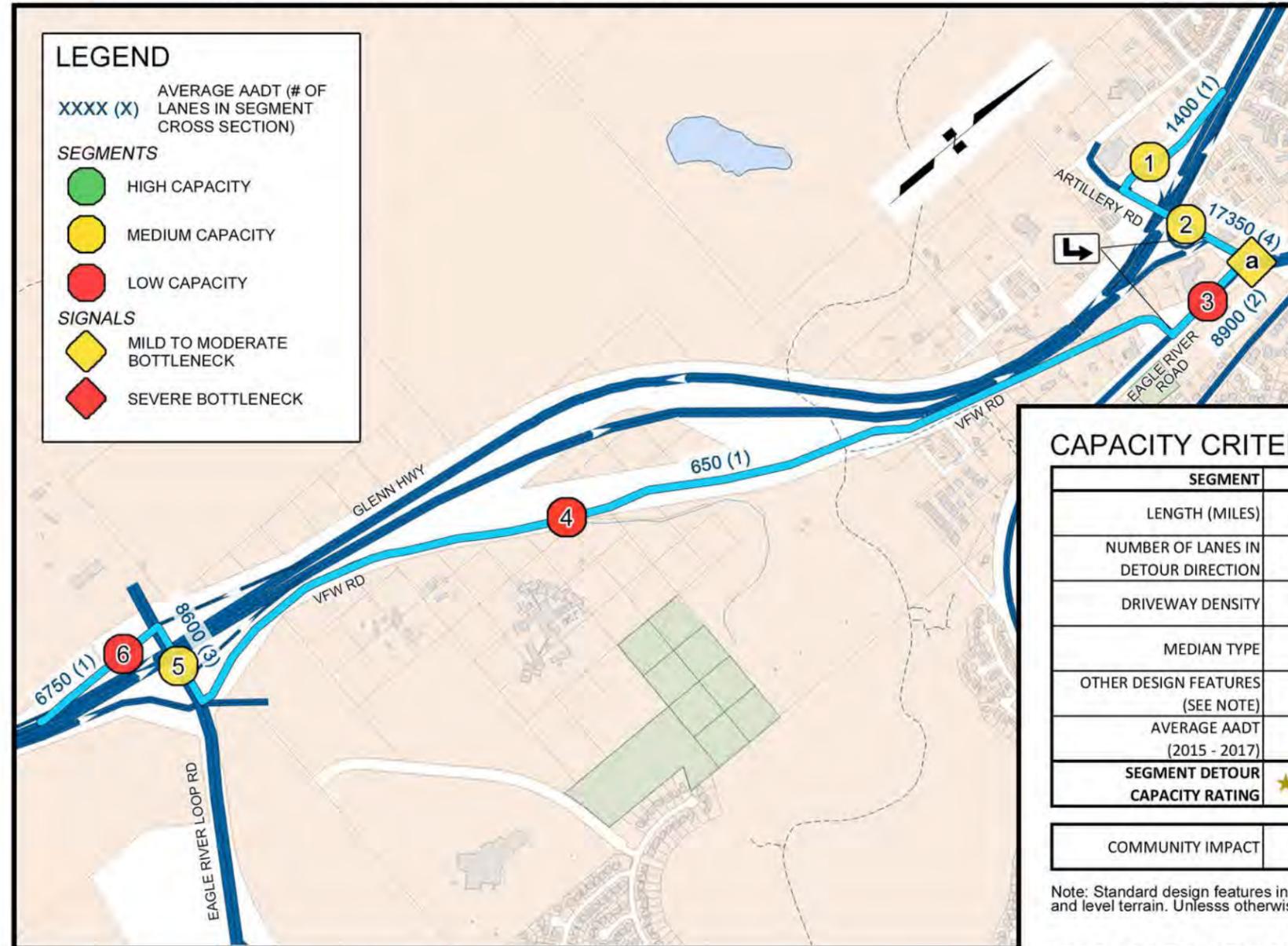
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY
EAGLE RIVER LP RD / HILAND TO
EAGLE RIVER / ARTILLERY
INTERCHANGE NORTHBOUND
DETOUR ROUTE
CAPACITY ANALYSIS**

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

FILE DATE/TIME LAYOUT DESIGNED CHECKED DRAFTED

DETOUR SEGMENT AND INTERSECTION CAPACITY



Note: The purpose of this graphic is to show a qualitative comparison of capacity on the segments and intersections along the detour routes. This will help to identify likely locations of bottlenecks, community impacts, and areas of possible improvement.

CAPACITY CRITERIA QUALITIES OF SOUTHBOUND DETOUR SEGMENTS

SEGMENT	1	2	3	4	5	6
LENGTH (MILES)	0.24	0.06	0.15	1.69	0.13	0.25
NUMBER OF LANES IN DETOUR DIRECTION	1	2	1	1	2	1
DRIVEWAY DENSITY	Low	High	Low	Low	Low	Low
MEDIAN TYPE	Closed	Closed	Open	Open	Open	Closed
OTHER DESIGN FEATURES (SEE NOTE)	-	-	-	NARROW SHOULDERS, SOME GRADES >5%	-	-
AVERAGE AADT (2015 - 2017)	1,400	17,350	8,900	650	8,600	6,750
SEGMENT DETOUR CAPACITY RATING	★★	★★★★	★	★	★★★★	★
COMMUNITY IMPACT	Low	High	Medium	Low	Medium	Low

Note: Standard design features include posted speed limits of 35 mph or greater, lanes 12 ft wide or greater, shoulders 6 ft wide or greater, and level terrain. Unless otherwise notes, the segment has standard design features.

CAPACITY CRITERIA QUALITIES OF SIGNALS ON SOUTHBOUND DETOUR

SIGNAL	a
NUMBER OF LANES IN DETOUR DIRECTION	2
DETOUR APPROACH ON MAJOR ROAD?	Yes
MOVEMENT	Right
LANE REDUCTION (MERGE) PRIOR TO INTERSECTION	No
SIGNAL DETOUR CAPACITY RATING	★★

OFF PEAK TRAVEL SPEED THROUGH DETOUR	25 MPH
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY
EAGLE RIVER LP RD/HILAND TO
EAGLE RIVER / ARTILLERY
INTERCHANGE
SOUTHBOUND DETOUR ROUTE
CAPACITY ANALYSIS**

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 348-2373
CERT. OF AUTH. NO. AECL 1102

FILE DATE/TIME LAYOUT DESIGNED CHECKED DRAFTED

DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON EXISTING ROAD NETWORK

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF DETOUR ROUTE (VPH)	TOTAL DETOUR DEMAND * (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	1,000	740	100%
	PM	1,000	4,050	0%
Southbound	AM	1,000	3,880	0%
	PM	1,000	1,490	50%

*Total detour demand is the sum of existing demand on the detour route plus rerouted demand from the Glenn Highway due to closure of the Glenn Highway.

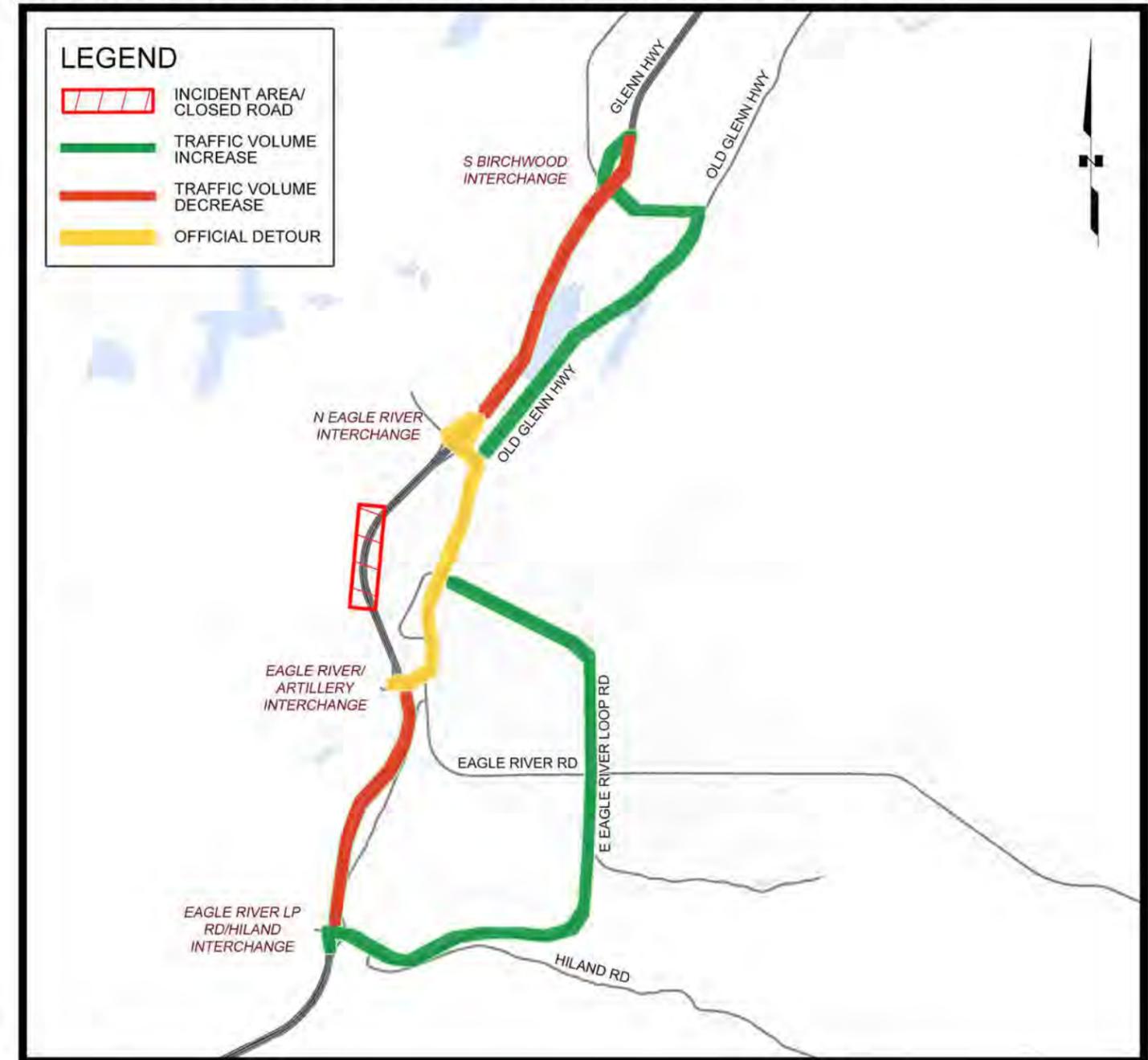
DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON TEMPORARY INFRASTRUCTURE

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF CROSSOVER (VPH)	CROSSOVER DEMAND * (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	1,400	500	100%
	PM	1,400	2,900	50%
Southbound	AM	1,400	2,900	50%
	PM	1,400	1,000	100%

*Crossover demand is the existing directional demand on the Glenn Highway.

Note: Capacity estimates are based on HCM methodology and planning level design with a target performance of LOS D/E. The detour demand is the total volume that is currently using the closed section of highway. Not all of the traffic currently using this section of highway will use the official detour, as shown in the figure to the right. Once the capacity of the detour is met, traffic will find alternative paths.

PREDICTED ALTERNATIVE DETOUR ROUTING DUE TO CLOSURES

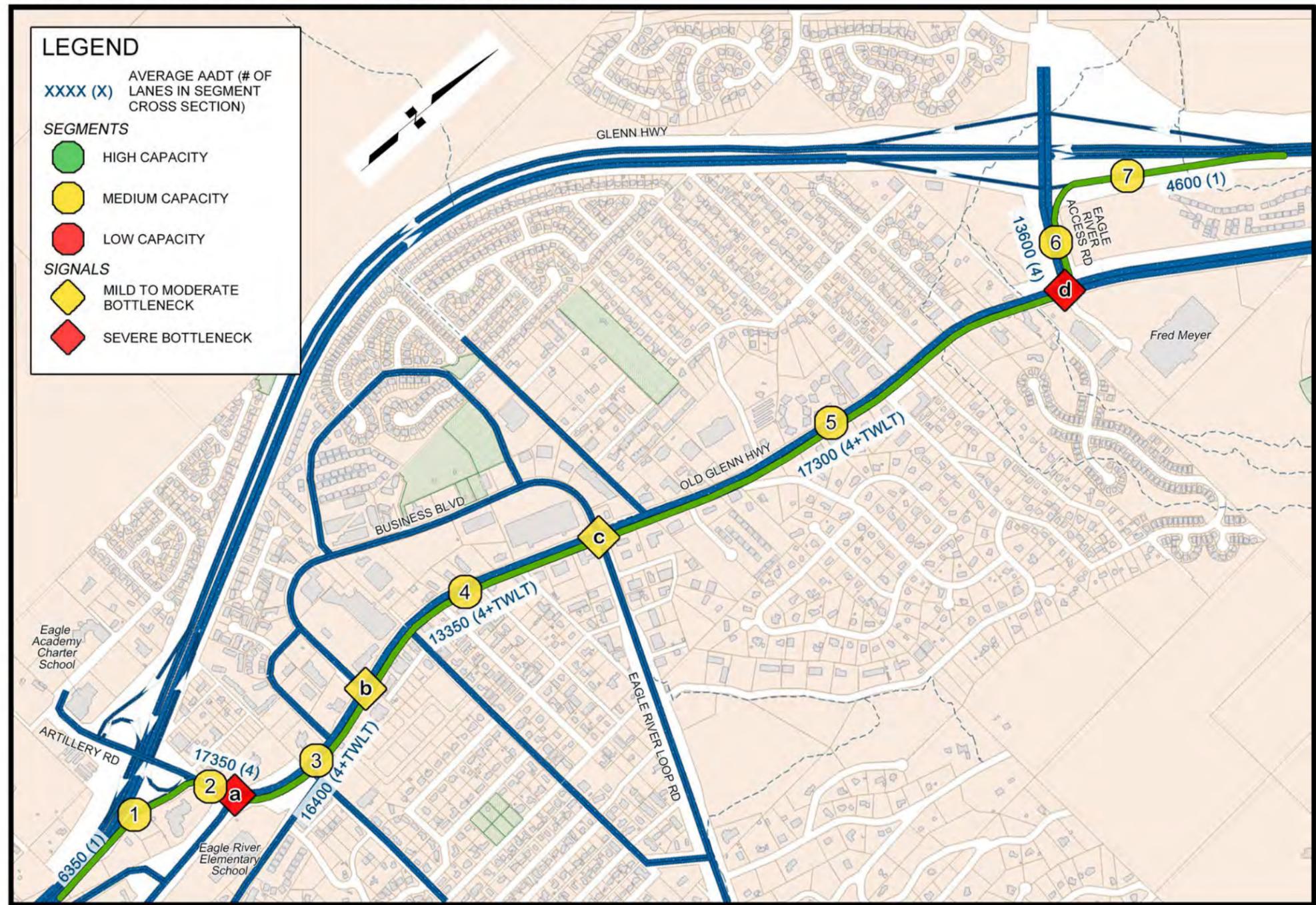


Note: Alternative routes are estimated using 2013 Base model of the 2040 AMATS Model. Highlighted routes are routes which are likely to experience over a 1,000 AADT increase or decrease due to redirected traffic.

FILE | DATE/TIME | LAYOUT | DESIGNED | CHECKED | DRAFTED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	TJ9.1A	TJ17.0

DETOUR SEGMENT AND INTERSECTION CAPACITY



Note: The purpose of this graphic is to show a qualitative comparison of capacity on the segments and intersections along the detour routes. This will help to identify likely locations of bottlenecks, community impacts, and areas of possible improvement.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY
EAGLE RIVER / ARTILLERY TO
N EAGLE RIVER INTERCHANGE
NORTHBOUND DETOUR ROUTE
CAPACITY ANALYSIS**

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

DRAFTED | CHECKED | DESIGNED | LAYOUT | DATE/TIME | FILE

FILE | DATE/TIME | LAYOUT | DESIGNED | CHECKED | DRAFTED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	TJ9.1B	TJ17.0

CAPACITY CRITERIA QUALITIES OF NORTHBOUND DETOUR SEGMENTS

SEGMENT	1	2	3	4	5	6	7
LENGTH (MILES)	0.21	0.05	0.27	0.41	0.78	0.11	0.46
NUMBER OF LANES IN DETOUR DIRECTION	1	2	2	2	2	2	1
DRIVEWAY DENSITY	Low	High	High	High	High	Low	Low
MEDIAN TYPE	Closed	Closed	TWLT	TWLT	TWLT	Closed	Closed
OTHER DESIGN FEATURES (SEE NOTE)	-	-	-	-	-	-	-
AVERAGE AADT (2015 - 2017)	6,350	17,350	16,400	13,350	17,300	13,600	4,600
SEGMENT DETOUR CAPACITY RATING	★★	★★★	★★★★	★★★★	★★★★	★★★★★	★★
COMMUNITY IMPACT	Medium	High	High	High	High	Medium	Low

Note: Standard design features include posted speeds of 35 mph or greater, lanes 12 ft wide or greater, shoulders 6 ft wide or greater, and level terrain. Unless otherwise notes, the segment has standard design features.

CAPACITY CRITERIA QUALITIES OF SIGNALS ON NORTHBOUND DETOUR

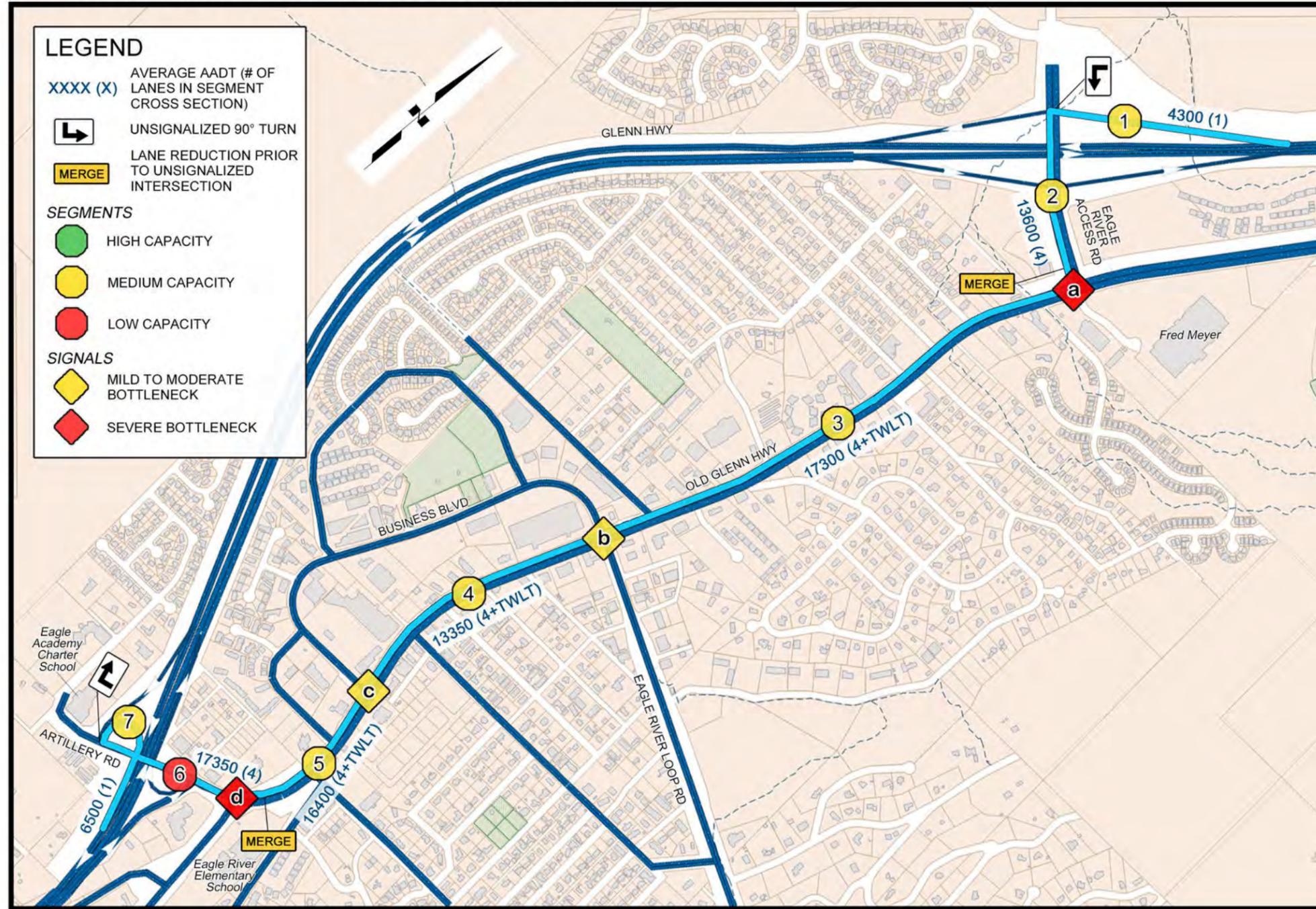
SIGNAL	a	b	c	d
NUMBER OF LANES IN DETOUR DIRECTION	1	2	2	1
DETOUR APPROACH ON MAJOR ROAD?	Yes	Yes	Yes	Yes
MOVEMENT	Through	Through	Through	Left
LANE REDUCTION (MERGE) PRIOR TO INTERSECTION	Yes	No	No	Yes
SIGNAL DETOUR CAPACITY RATING	★	★★★★	★★★★	★

OFF PEAK TRAVEL SPEED THROUGH DETOUR	25 MPH
--------------------------------------	--------

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3905 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 348-2373 CERT. OF ALTH. NO. ASCL 1102	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY EAGLE RIVER / ARTILLERY TO N EAGLE RIVER INTERCHANGE NORTHBOUND DETOUR ROUTE CAPACITY ANALYSIS
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	TJ9.2A	TJ17.0

DETOUR SEGMENT AND INTERSECTION CAPACITY



Note: The purpose of this graphic is to show a qualitative comparison of capacity on the segments and intersections along the detour routes. This will help to identify likely locations of bottlenecks, community impacts, and areas of possible improvement.

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY
EAGLE RIVER / ARTILLERY TO
N EAGLE RIVER INTERCHANGE
SOUTHBOUND DETOUR ROUTE
CAPACITY ANALYSIS**

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	TJ9.2B	TJ17.0

CAPACITY CRITERIA QUALITIES OF SOUTHBOUND DETOUR SEGMENTS

SEGMENT	1	2	3	4	5	6	7
LENGTH (MILES)	0.35	0.27	0.78	0.41	0.27	0.06	0.19
NUMBER OF LANES IN DETOUR DIRECTION	1	2	2	2	2	1	1
DRIVEWAY DENSITY	Low	Low	High	High	High	High	Low
MEDIAN TYPE	Closed	Closed	TWLT	TWLT	TWLT	Closed	Closed
OTHER DESIGN FEATURES (SEE NOTE)	-	-	-	-	-	-	-
AVERAGE AADT (2015 - 2017)	4,300	13,600	17,300	13,350	16,400	17,350	6,500
SEGMENT DETOUR CAPACITY RATING	★★	★★★★	★★★	★★★	★★★	★	★★
COMMUNITY IMPACT	Low	Medium	High	High	High	High	High

Note: Standard design features include posted speeds of 35 mph or greater, lanes 12 ft wide or greater, shoulders 6 ft wide or greater, and level terrain. Unless otherwise notes, the segment has standard design features.

CAPACITY CRITERIA QUALITIES OF SIGNALS ON SOUTHBOUND DETOUR

SIGNAL	a	b	c	d
NUMBER OF LANES IN DETOUR DIRECTION	1	2	2	1
DETOUR APPROACH ON MAJOR ROAD?	Yes	Yes	Yes	Yes
MOVEMENT	Right	Through	Through	Through
LANE REDUCTION (MERGE) PRIOR TO INTERSECTION	Yes	No	No	No
SIGNAL DETOUR CAPACITY RATING	★	★★★	★★★	★

OFF PEAK TRAVEL SPEED THROUGH DETOUR	25 MPH
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STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY EAGLE RIVER / ARTILLERY TO N EAGLE RIVER INTERCHANGE SOUTHBOUND DETOUR ROUTE CAPACITY ANALYSIS	PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3905 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 348-2373 CERT. OF ALTH. NO. ASCL 1102
---	--

FILE | DATE/TIME | LAYOUT | DESIGNED | CHECKED | DRAFTED

DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON EXISTING ROAD NETWORK

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF DETOUR ROUTE (VPH)	TOTAL DETOUR DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	1,220	680	100%
	PM	1,220	3,110	30%
Southbound	AM	1,220	3,060	35%
	PM	1,220	1,170	100%

*Total detour demand is the sum of existing demand on the detour route plus rerouted demand from the Glenn Highway due to closure of the Glenn Highway.

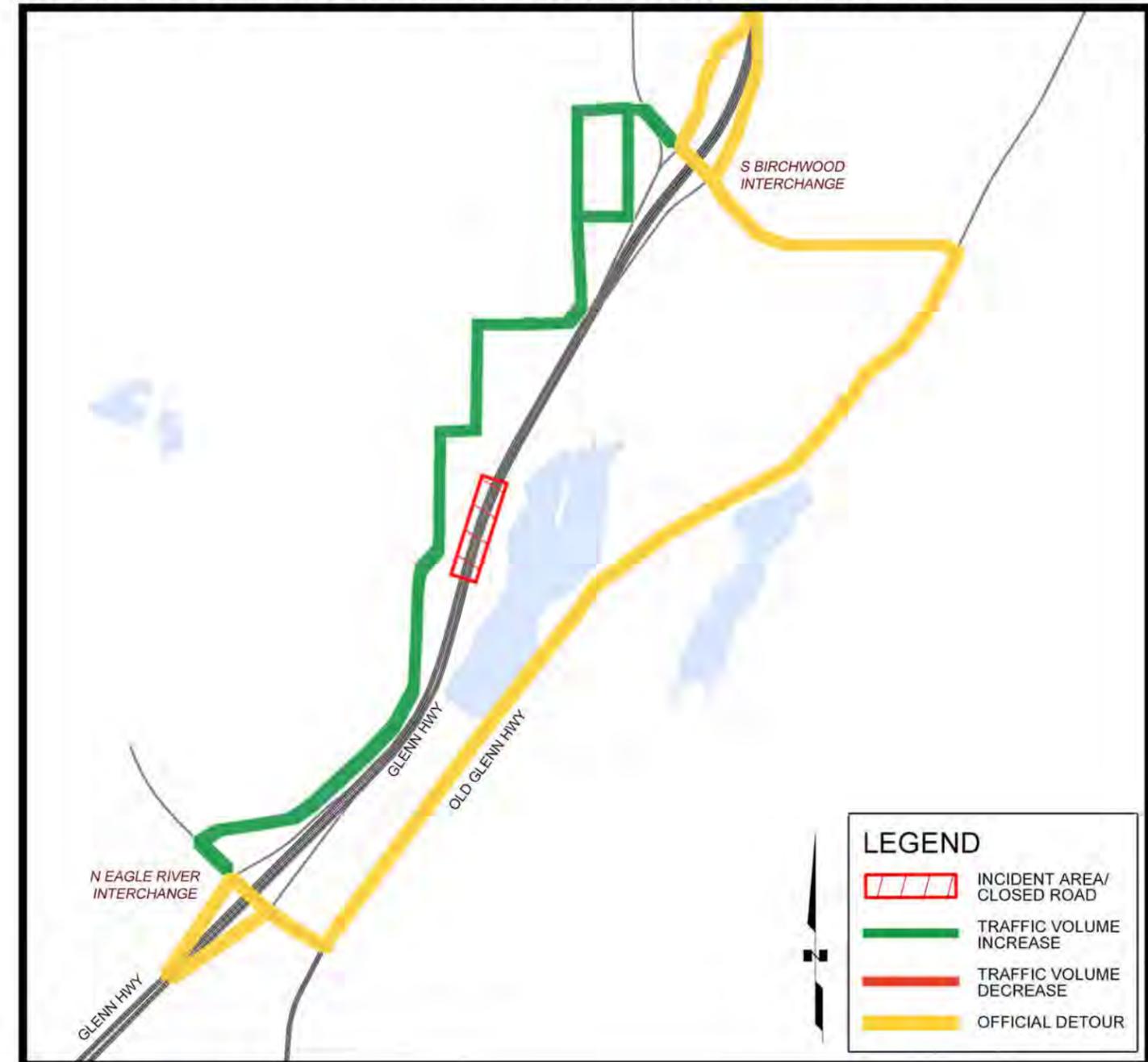
DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON TEMPORARY INFRASTRUCTURE

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF CROSSOVER (VPH)	CROSSOVER DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	1,400	500	100%
	PM	1,400	2,700	50%
Southbound	AM	1,400	2,800	50%
	PM	1,400	900	100%

*Crossover demand is the existing directional demand on the Glenn Highway.

Note: Capacity estimates are based on HCM methodology and planning level design with a target performance of LOS D/E. The detour demand is the total volume that is currently using the closed section of highway. Not all of the traffic currently using this section of highway will use the official detour, as shown in the figure to the right. Once the capacity of the detour is met, traffic will find alternative paths.

PREDICTED ALTERNATIVE DETOUR ROUTING DUE TO CLOSURES

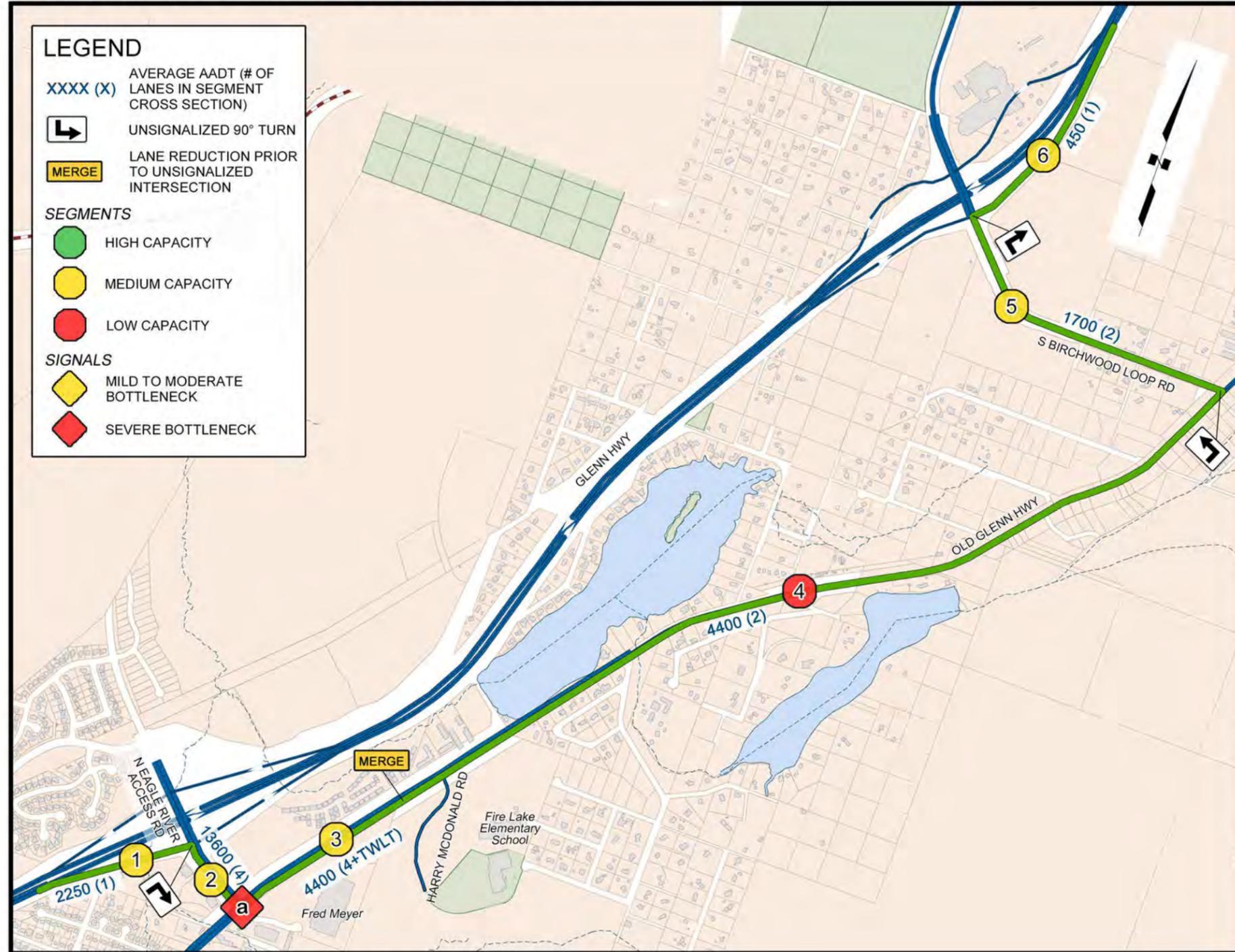


Note: Alternative routes are estimated using 2013 Base model of the 2040 AMATS Model. Highlighted routes are routes which are likely to experience over a 1,000 AADT increase or decrease due to redirected traffic.

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	TJ10.1A	TJ17.0

DETOUR SEGMENT AND INTERSECTION CAPACITY



Note: The purpose of this graphic is to show a qualitative comparison of capacity on the segments and intersections along the detour routes. This will help to identify likely locations of bottlenecks, community impacts, and areas of possible improvement.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY
N EAGLE RIVER TO S
BIRCHWOOD INTERCHANGE
NORTHBOUND DETOUR ROUTE
CAPACITY ANALYSIS**

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

DRAFTED | CHECKED | DESIGNED | LAYOUT | DATE/TIME | FILE

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	TJ10.1B	TJ17.0

CAPACITY CRITERIA QUALITIES OF NORTHBOUND DETOUR SEGMENTS

SEGMENT	1	2	3	4	5	6
LENGTH (MILES)	0.28	0.14	0.45	1.72	0.63	0.42
NUMBER OF LANES IN DETOUR DIRECTION	1	2	2	1	1	1
DRIVEWAY DENSITY	Low	Low	Low	Low	Low	Low
MEDIAN TYPE	Closed	Closed	TWLT	Open	Open	Closed
OTHER DESIGN FEATURES (SEE NOTE)	-	-	SOME GRADES > 5%	SOME GRADES > 5%	SOME GRADES > 5%	-
AVERAGE AADT (2015 - 2017)	2,550	13,600	4,400	4,400	1,700	454
SEGMENT DETOUR CAPACITY RATING	★★	★★★★	★★★	★	★★	★★★★
COMMUNITY IMPACT	Low	Medium	Low	Low	Low	Low

Note: Standard design features include posted speeds of 35 mph or greater, lanes 12 ft wide or greater, shoulders 6 ft wide or greater, and level terrain. Unless otherwise notes, the segment has standard design features.

CAPACITY CRITERIA QUALITIES OF SIGNALS ON NORTHBOUND DETOUR

SIGNAL	a
NUMBER OF LANES IN DETOUR DIRECTION	1
DETOUR APPROACH ON MAJOR ROAD?	Yes
MOVEMENT	Left
LANE REDUCTION (MERGE) PRIOR TO INTERSECTION	Yes
SIGNAL DETOUR CAPACITY RATING	★

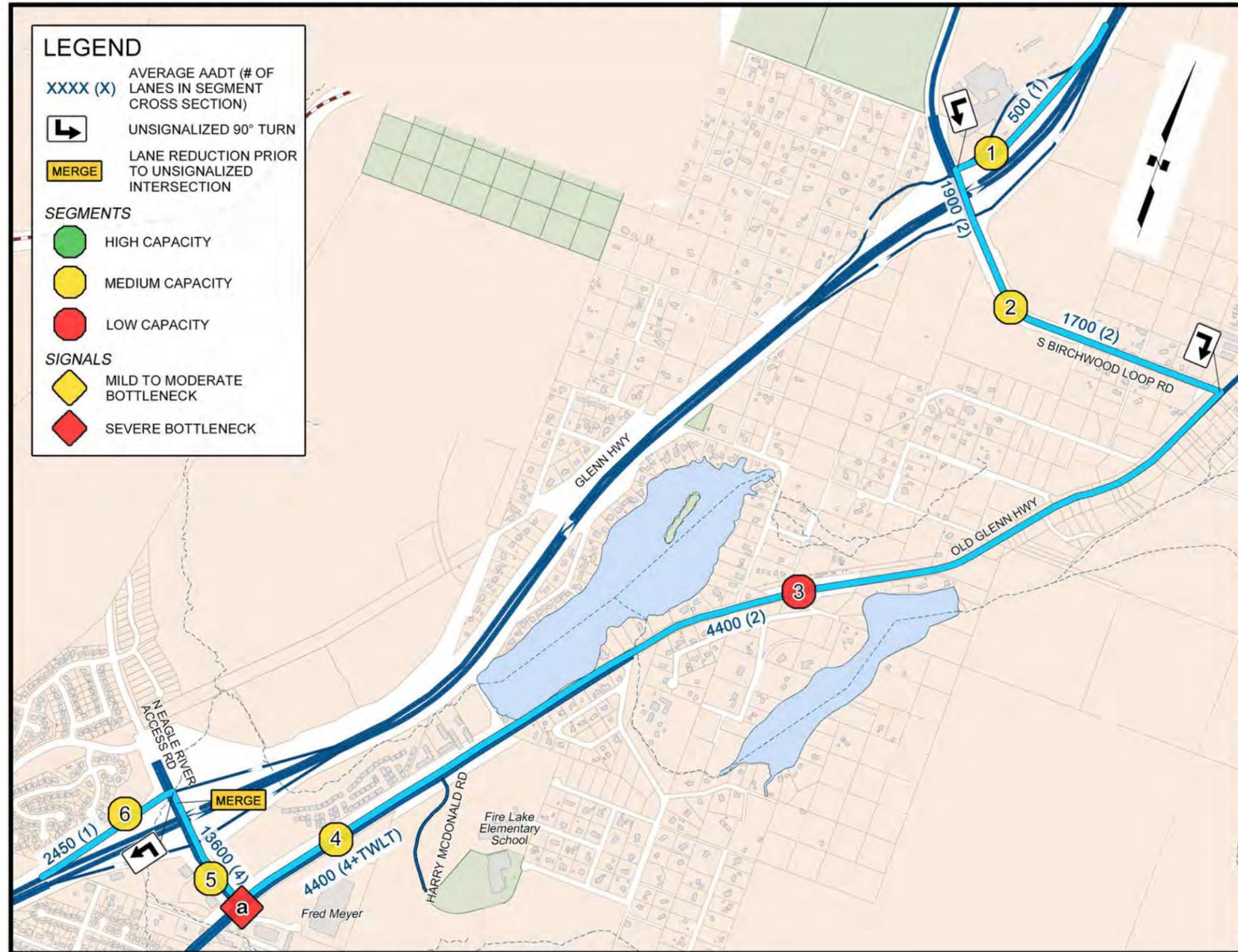
OFF PEAK TRAVEL SPEED THROUGH DETOUR	35 MPH
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STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY N EAGLE RIVER TO S BIRCHWOOD INTERCHANGE NORTHBOUND DETOUR ROUTE CAPACITY ANALYSIS	PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3905 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF ALTH. NO. ASCL 1102
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FILE | DATE/TIME | LAYOUT | DESIGNED | CHECKED | DRAFTED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	TJ102A	TJ17.0

DETOUR SEGMENT AND INTERSECTION CAPACITY



Note: The purpose of this graphic is to show a qualitative comparison of capacity on the segments and intersections along the detour routes. This will help to identify likely locations of bottlenecks, community impacts, and areas of possible improvement.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY
N EAGLE RIVER TO S
BIRCHWOOD INTERCHANGE
SOUTHBOUND DETOUR ROUTE
CAPACITY ANALYSIS**

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	TJ102B	TJ17.0

CAPACITY CRITERIA QUALITIES OF SOUTHBOUND DETOUR SEGMENTS

SEGMENT	1	2	3	4	5	6
LENGTH (MILES)	0.34	0.73	1.72	0.45	0.25	0.37
NUMBER OF LANES IN DETOUR DIRECTION	1	1	1	2	2	1
DRIVEWAY DENSITY	Low	Low	Low	Low	Low	Low
MEDIAN TYPE	Closed	Open	Open	TWLT	Closed	Closed
OTHER DESIGN FEATURES (SEE NOTE)	-	SOME GRADES > 5%	SOME GRADES > 5%	SOME GRADES > 5%	-	-
AVERAGE AADT (2015 - 2017)	500	1,900	4,400	4,400	13,600	2,450
SEGMENT DETOUR CAPACITY RATING	☆☆☆	☆☆	★	☆☆☆	☆☆☆☆	☆☆
COMMUNITY IMPACT	Low	Low	Low	Low	Medium	Low

Note: Standard design features include posted speeds of 35 mph or greater, lanes 12 ft wide or greater, shoulders 6 ft wide or greater, and level terrain. Unless otherwise notes, the segment has standard design features.

CAPACITY CRITERIA QUALITIES OF SIGNALS ON SOUTHBOUND DETOUR

SIGNAL	a
NUMBER OF LANES IN DETOUR DIRECTION	1
DETOUR APPROACH ON MAJOR ROAD?	Yes
MOVEMENT	Right
LANE REDUCTION (MERGE) PRIOR TO INTERSECTION	Yes
OVERALL SIGNAL CAPACITY RATING	★

OFF PEAK TRAVEL SPEED THROUGH DETOUR	35 MPH
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STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY N EAGLE RIVER TO S BIRCHWOOD INTERCHANGE SOUTHBOUND DETOUR ROUTE CAPACITY ANALYSIS	PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3905 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 348-2373 CERT. OF ALTH. NO. ASCL 1102
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FILE DATE/TIME LAYOUT DESIGNED CHECKED DRAFTED

DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON EXISTING ROAD NETWORK

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF DETOUR ROUTE (VPH)	TOTAL DETOUR DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	1,220	590	100%
	PM	1,220	3,100	35%
Southbound	AM	1,220	2,960	40%
	PM	1,220	1,060	100%

*Total detour demand is the sum of existing demand on the detour route plus rerouted demand from the Glenn Highway due to closure of the Glenn Highway.

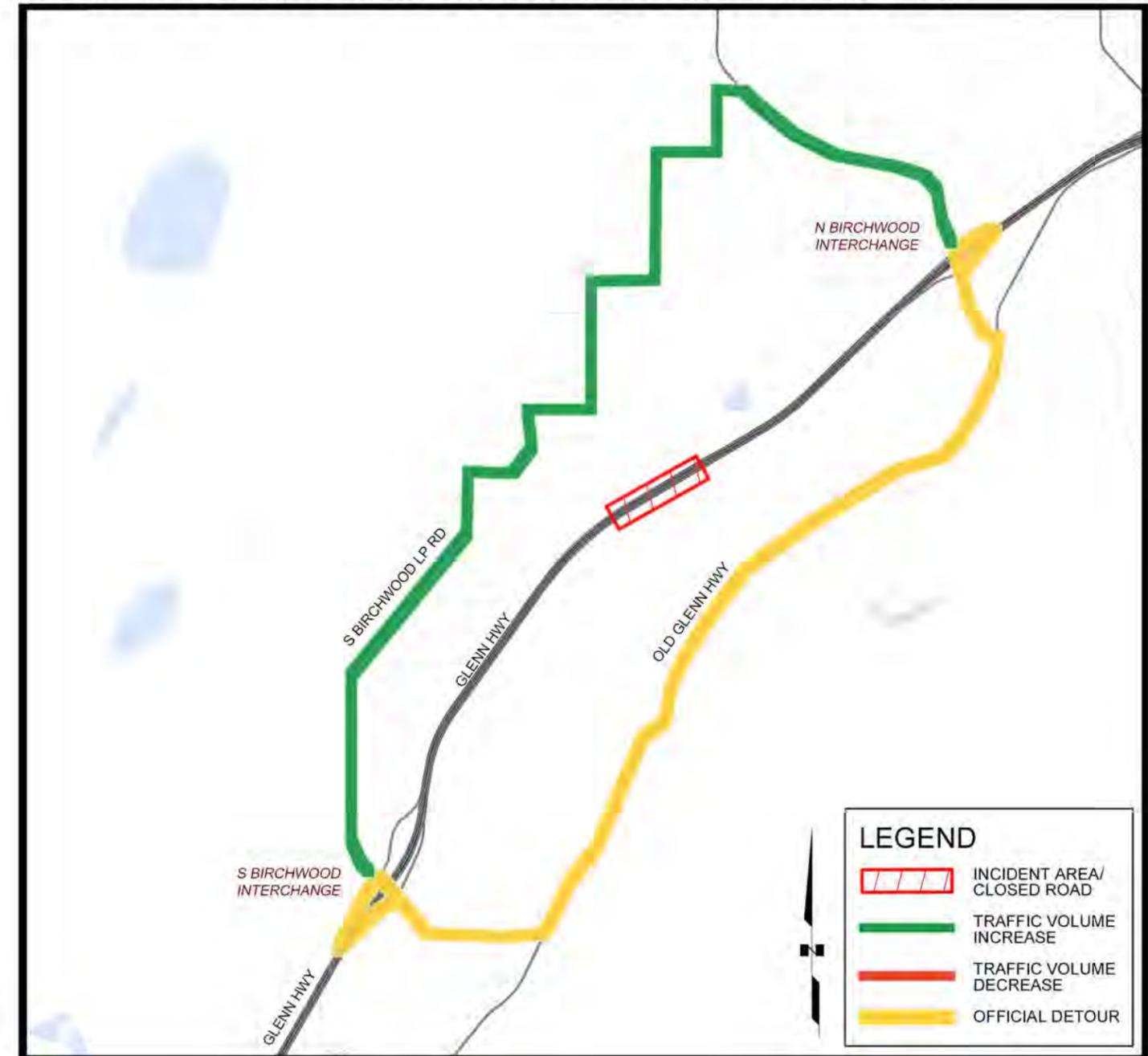
DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON TEMPORARY INFRASTRUCTURE

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF CROSSOVER (VPH)	CROSSOVER DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	1,400	500	100%
	PM	1,400	2,900	50%
Southbound	AM	1,400	2,900	50%
	PM	1,400	1,000	100%

*Crossover demand is the existing directional demand on the Glenn Highway.

Note: Capacity estimates are based on HCM methodology and planning level design with a target performance of LOS D/E. The detour demand is the total volume that is currently using the closed section of highway. Not all of the traffic currently using this section of highway will use the official detour, as shown in the figure to the right. Once the capacity of the detour is met, traffic will find alternative paths.

PREDICTED ALTERNATIVE DETOUR ROUTING DUE TO CLOSURES

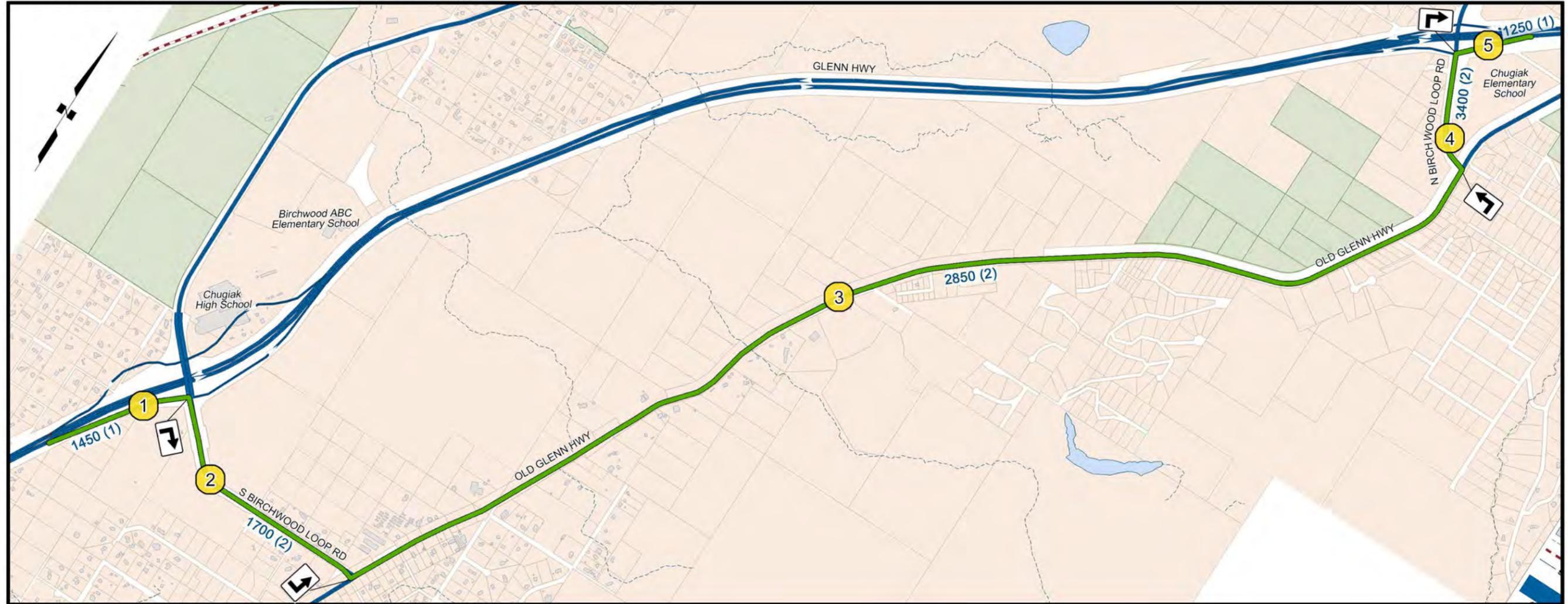


Note: Alternative routes are estimated using 2013 Base model of the 2040 AMATS Model. Highlighted routes are routes which are likely to experience over a 1,000 AADT increase or decrease due to redirected traffic.

FILE DATE/TIME LAYOUT DESIGNED CHECKED DRAFTED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	TJ11.1A	TJ17.0

DETOUR SEGMENT AND INTERSECTION CAPACITY



Note: The purpose of this graphic is to show a qualitative comparison of capacity on the segments and intersections along the detour routes. This will help to identify likely locations of bottlenecks, community impacts, and areas of possible improvement.

LEGEND

XXXX (X) AVERAGE AADT (# OF LANES IN SEGMENT CROSS SECTION)

↳ UNSIGNALIZED 90° TURN

SEGMENTS

- HIGH CAPACITY
- MEDIUM CAPACITY
- LOW CAPACITY

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY
S BIRCHWOOD TO N
BIRCHWOOD INTERCHANGE
NORTHBOUND DETOUR ROUTE
CAPACITY ANALYSIS**

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

FILE DATE/TIME LAYOUT DESIGNED CHECKED DRAFTED

FILE | DATE/TIME | LAYOUT | DESIGNED | CHECKED | DRAFTED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	TJ11.1B	TJ17.0

CAPACITY CRITERIA QUALITIES OF NORTHBOUND DETOUR SEGMENTS

SEGMENT	1	2	3	4	5
LENGTH (MILES)	0.32	0.63	3.09	0.30	0.24
NUMBER OF LANES IN DETOUR DIRECTION	1	1	1	1	1
DRIVEWAY DENSITY	Low	Low	Low	Low	Low
MEDIAN TYPE	Closed	Open	Open	TWLT	Closed
OTHER DESIGN FEATURES (SEE NOTE)	NARROW SHOULDER	SOME GRADES > 5%	SOME GRADES > 5%	-	-
AVERAGE AADT (2015 - 2017)	1,450	1,700	2,850	3,400	1,250
SEGMENT DETOUR CAPACITY RATING	★ ★ ★	★ ★	★ ★	★ ★	★ ★ ★
COMMUNITY IMPACT	Low	Low	Low	Low	Low

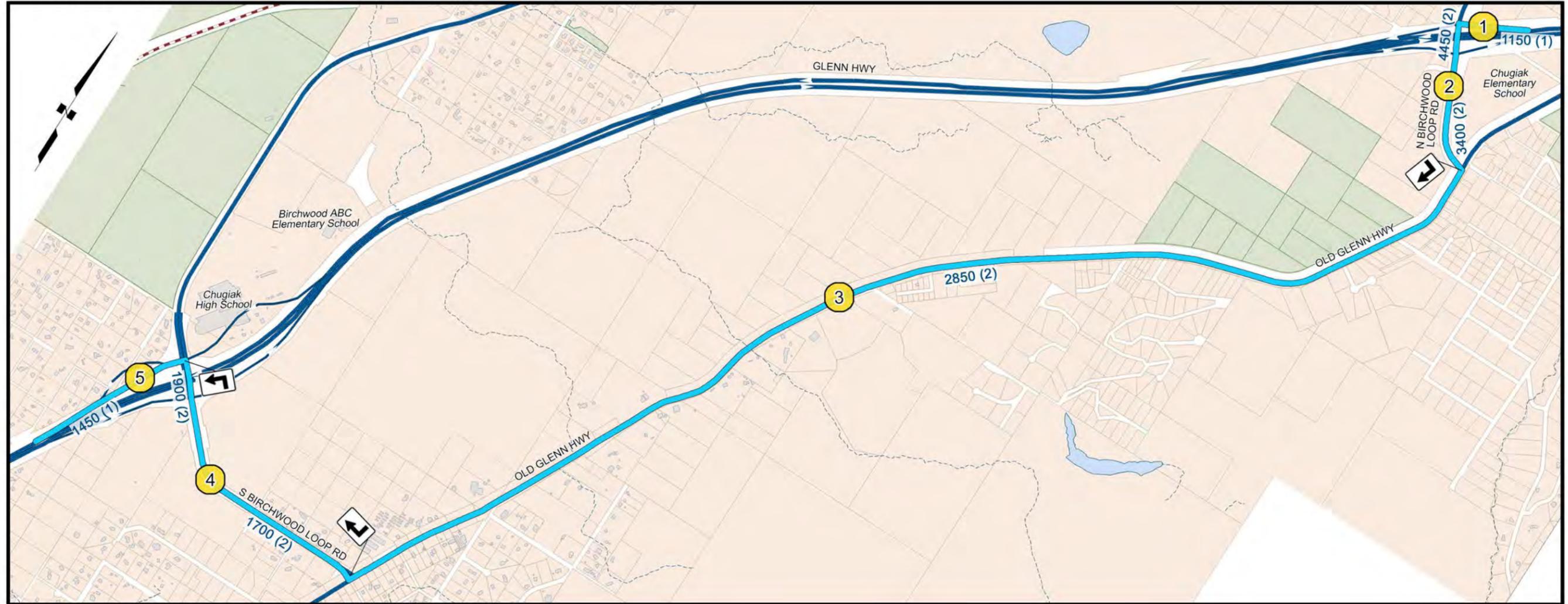
Note: Standard design features include posted speeds of 35 mph or greater, lanes 12 ft wide or greater, shoulders 6 ft wide or greater, and level terrain. Unless otherwise notes, the segment has standard design features.

OFF PEAK TRAVEL SPEED THROUGH DETOUR	35 MPH
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PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3905 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 346-2373 CERT. OF ALTH. NO. ASCL 1102	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY S BIRCHWOOD TO N BIRCHWOOD INTERCHANGE NORTHBOUND DETOUR ROUTE CAPACITY ANALYSIS
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	TJ11.2A	TJ17.0

DETOUR SEGMENT AND INTERSECTION CAPACITY



Note: The purpose of this graphic is to show a qualitative comparison of capacity on the segments and intersections along the detour routes. This will help to identify likely locations of bottlenecks, community impacts, and areas of possible improvement.

LEGEND

XXXX (X) AVERAGE AADT (# OF LANES IN SEGMENT CROSS SECTION)

↳ UNSIGNALIZED 90° TURN

SEGMENTS

- HIGH CAPACITY
- MEDIUM CAPACITY
- LOW CAPACITY

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY
S BIRCHWOOD TO N
BIRCHWOOD INTERCHANGE
SOUTHBOUND DETOUR ROUTE
CAPACITY ANALYSIS**

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	TJ112B	TJ17.0

CAPACITY CRITERIA QUALITIES OF SOUTHBOUND DETOUR SEGMENTS

SEGMENT	1	2	3	4	5
LENGTH (MILES)	0.18	0.38	3.09	0.73	0.38
NUMBER OF LANES IN DETOUR DIRECTION	1	1	1	1	1
DRIVEWAY DENSITY	Low	Low	Low	Low	Low
MEDIAN TYPE	Closed	TWLT	Open	Open	Closed
OTHER DESIGN FEATURES (SEE NOTE)	-	-	SOME GRADES > 5%	SOME GRADES > 5%	-
AVERAGE AADT (2015 - 2017)	1,152	4,450	2,850	1,900	1,457
SEGMENT DETOUR CAPACITY RATING	★ ★ ★	★ ★	★ ★	★ ★	★ ★ ★
COMMUNITY IMPACT	Low	Low	Low	Low	Low

Note: Standard design features include posted speeds of 35 mph or greater, lanes 12 ft wide or greater, shoulders 6 ft wide or greater, and level terrain. Unless otherwise notes, the segment has standard design features.

OFF PEAK TRAVEL SPEED THROUGH DETOUR	35 MPH
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PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3908 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 348-2373 CERT. OF ALTH. NO. ASCL 1102	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY S BIRCHWOOD TO N BIRCHWOOD INTERCHANGE SOUTHBOUND DETOUR ROUTE CAPACITY ANALYSIS
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DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON EXISTING ROAD NETWORK

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF DETOUR ROUTE (VPH)	TOTAL DETOUR DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	1,220	540	100%
	PM	1,220	2,680	45%
Southbound	AM	1,220	2,720	45%
	PM	1,220	920	100%

*Total detour demand is the sum of existing demand on the detour route plus rerouted demand from the Glenn Highway due to closure of the Glenn Highway.

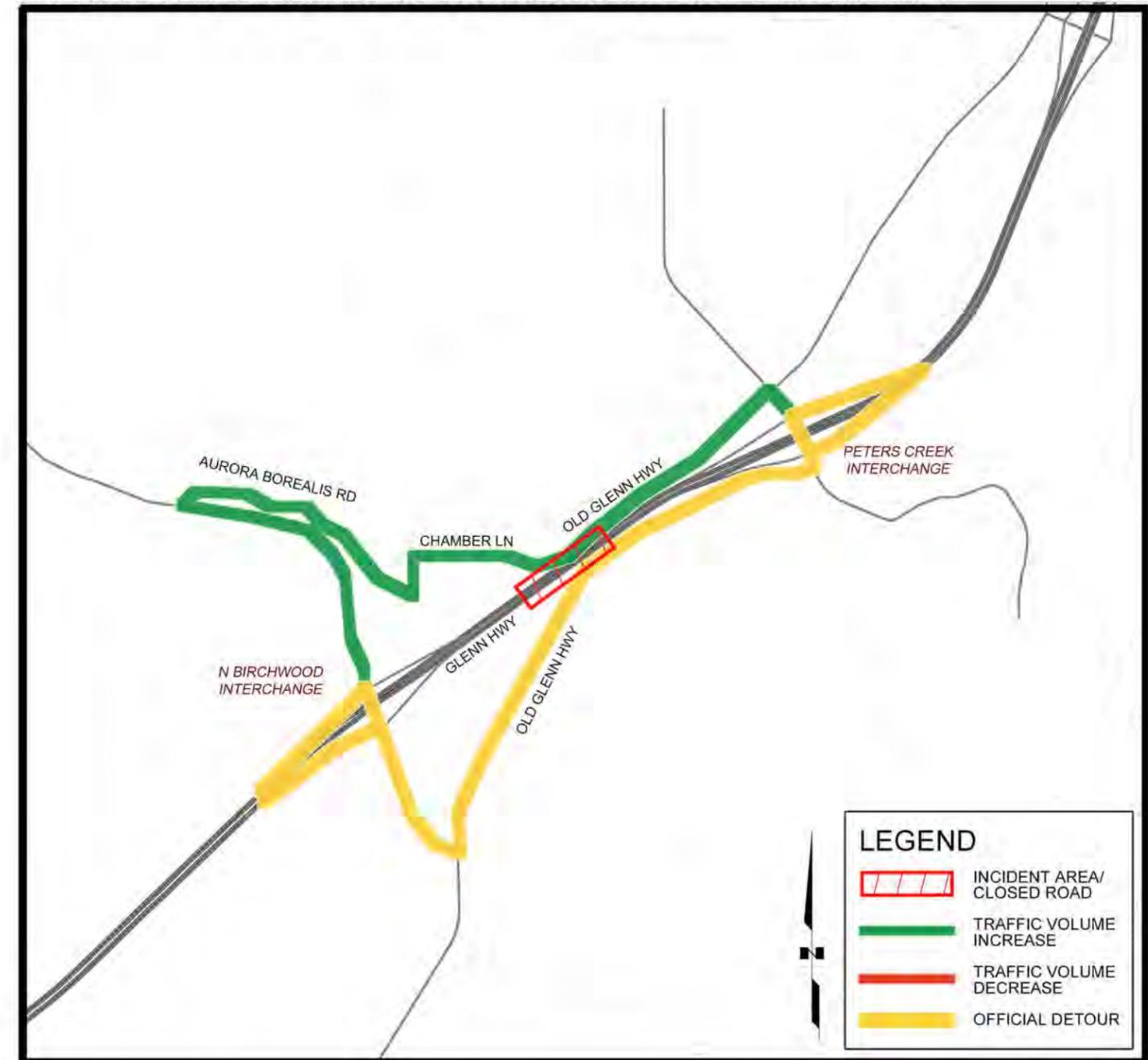
DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON TEMPORARY INFRASTRUCTURE

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF CROSSOVER (VPH)	CROSSOVER DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	1,400	500	100%
	PM	1,400	2,600	55%
Southbound	AM	1,400	2,700	50%
	PM	1,400	900	100%

*Crossover demand is the existing directional demand on the Glenn Highway.

Note: Capacity estimates are based on HCM methodology and planning level design with a target performance of LOS D/E. The detour demand is the total volume that is currently using the closed section of highway. Not all of the traffic currently using this section of highway will use the official detour, as shown in the figure to the right. Once the capacity of the detour is met, traffic will find alternative paths.

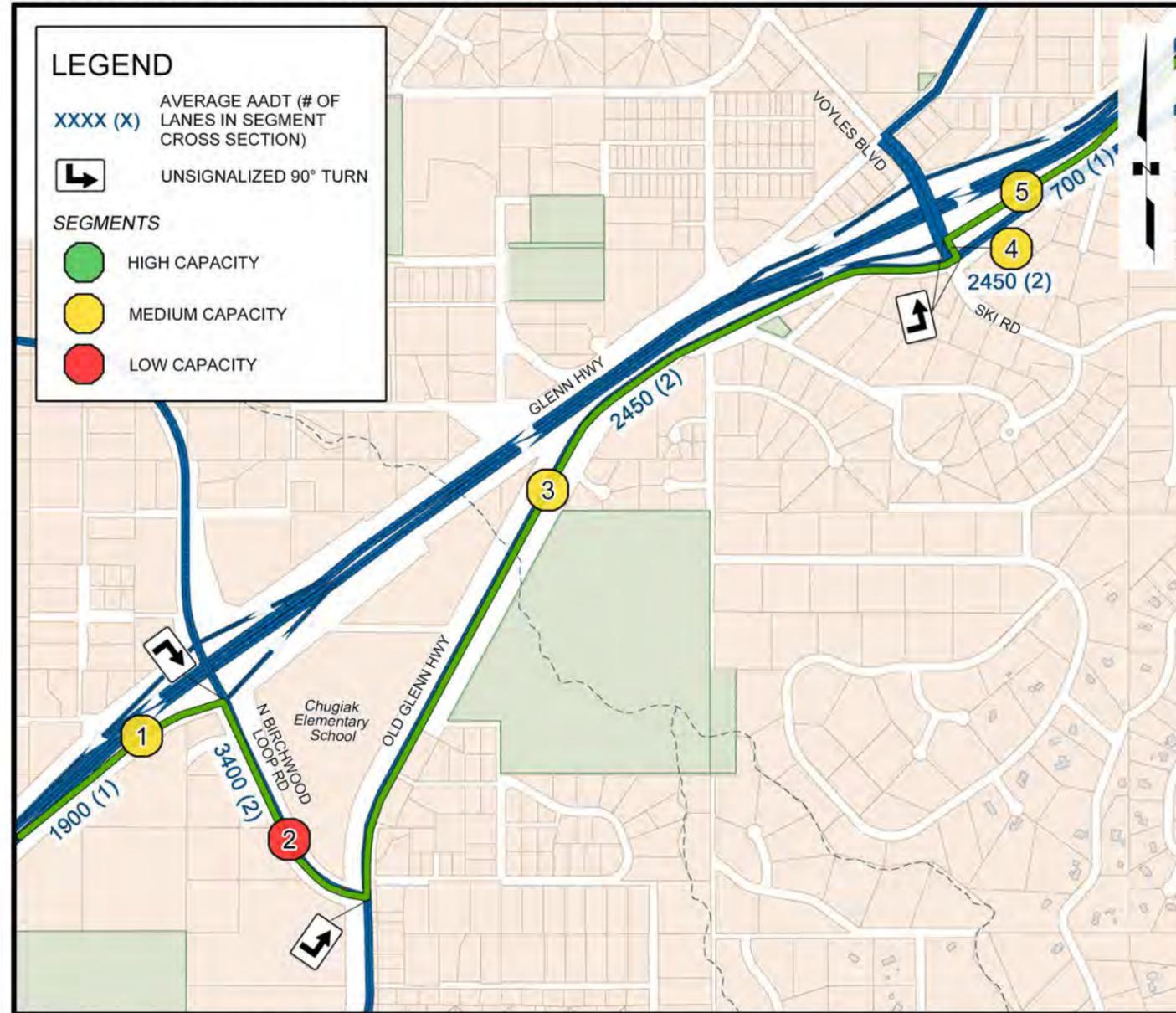
PREDICTED ALTERNATIVE DETOUR ROUTING DUE TO CLOSURES



Note: Alternative routes are estimated using 2013 Base model of the 2040 AMATS Model. Highlighted routes are routes which are likely to experience over a 1,000 AADT increase or decrease due to redirected traffic.

FILE | DATE/TIME | LAYOUT | DESIGNED | CHECKED | DRAFTED

DETOUR SEGMENT AND INTERSECTION CAPACITY



Note: The purpose of this graphic is to show a qualitative comparison of capacity on the segments and intersections along the detour routes. This will help to identify likely locations of bottlenecks, community impacts, and areas of possible improvement.

CAPACITY CRITERIA QUALITIES OF NORTHBOUND DETOUR SEGMENTS

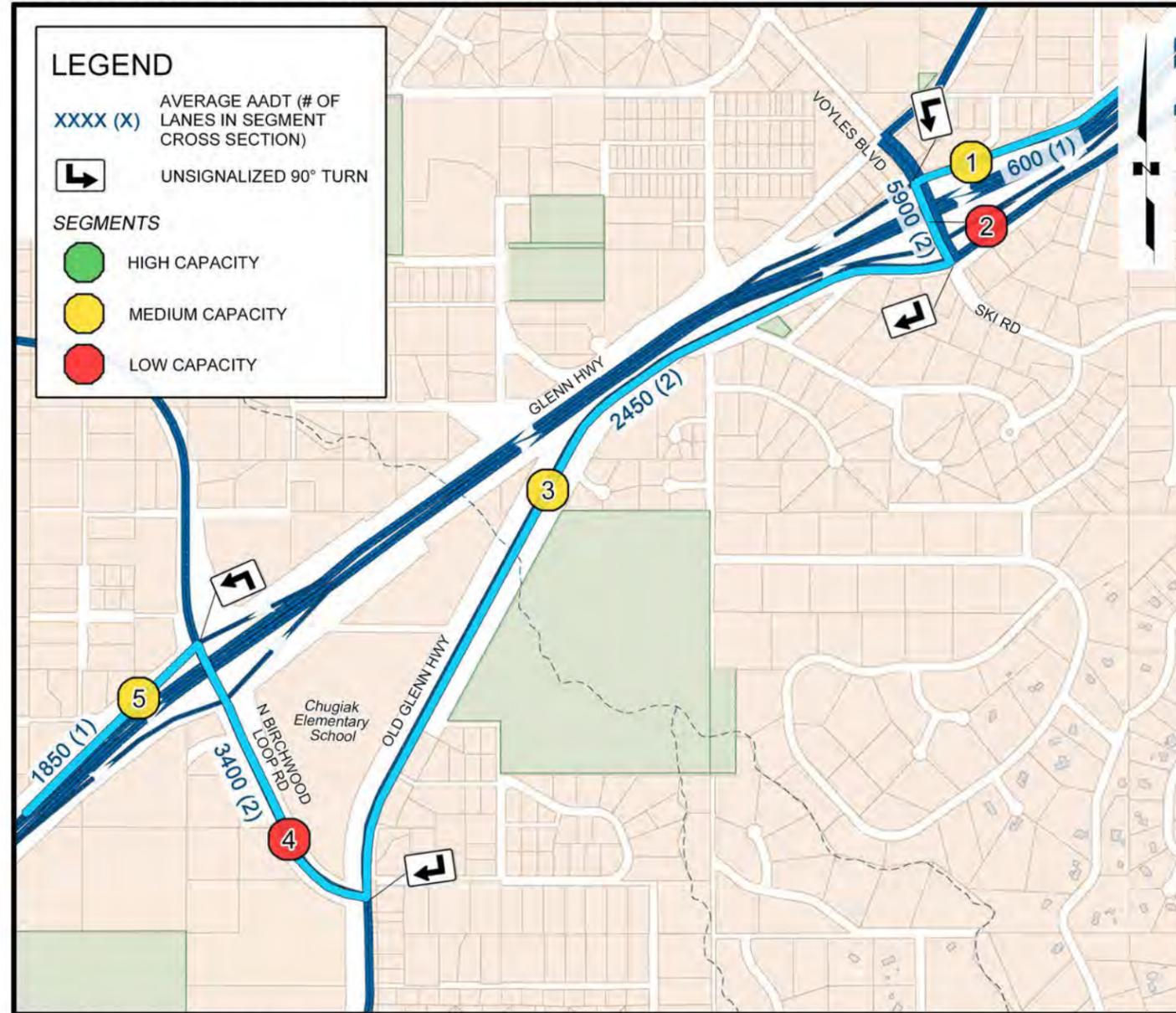
SEGMENT	1	2	3	4	5
LENGTH (MILES)	0.27	0.29	1.09	0.03	0.26
NUMBER OF LANES IN DETOUR DIRECTION	1	1	1	1	1
DRIVEWAY DENSITY	Low	Low	Low	Low	Low
MEDIAN TYPE	Closed	Open	Open	Open	Closed
OTHER DESIGN FEATURES (SEE NOTE)	-	SOME GRADES > 5%	SOME GRADES > 5%	-	-
AVERAGE AADT (2015 - 2017)	1,900	3,400	2,450	2,450	700
SEGMENT DETOUR CAPACITY RATING	★★	★	★★	★★	★★★
COMMUNITY IMPACT	Low	Low	Low	Low	Low

Note: Standard design features include posted speed limits of 35 mph or greater, lanes 12 ft wide or greater, shoulders 6 ft wide or greater, and level terrain. Unless otherwise notes, the segment has standard design features.

OFF PEAK TRAVEL SPEED THROUGH DETOUR	30 MPH
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FILE DATE/TIME LAYOUT DESIGNED CHECKED DRAFTED

DETOUR SEGMENT AND INTERSECTION CAPACITY



Note: The purpose of this graphic is to show a qualitative comparison of capacity on the segments and intersections along the detour routes. This will help to identify likely locations of bottlenecks, community impacts, and areas of possible improvement.

CAPACITY CRITERIA QUALITIES OF SOUTHBOUND DETOUR SEGMENTS

SEGMENT	1	2	3	4	5
LENGTH (MILES)	0.21	0.10	1.09	0.37	0.20
NUMBER OF LANES IN DETOUR DIRECTION	1	1	1	1	1
DRIVEWAY DENSITY	Low	Low	Low	Low	Low
MEDIAN TYPE	Closed	Open	Open	Open	Closed
OTHER DESIGN FEATURES (SEE NOTE)	-	-	SOME GRADES > 5%	SOME GRADES > 5%	-
AVERAGE AADT (2015 - 2017)	600	5,900	2,450	3,400	1,850
SEGMENT DETOUR CAPACITY RATING	★★★	★	★★	★	★★
COMMUNITY IMPACT	Low	Low	Low	Low	Low

Note: Standard design features include posted speed limits of 35 mph or greater, lanes 12 ft wide or greater, shoulders 6 ft wide or greater, and level terrain. Unless otherwise notes, the segment has standard design features.

OFF PEAK TRAVEL SPEED THROUGH DETOUR	30 MPH
--------------------------------------	--------

FILE | DATE/TIME | LAYOUT | DESIGNED | CHECKED | DRAFTED

DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON EXISTING ROAD NETWORK

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF DETOUR ROUTE (VPH)	TOTAL DETOUR DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	800	570	100%
	PM	800	2,660	25%
Southbound	AM	1,220	2,620	45%
	PM	1,220	820	100%

*Total detour demand is the sum of existing demand on the detour route plus rerouted demand from the Glenn Highway due to closure of the Glenn Highway.

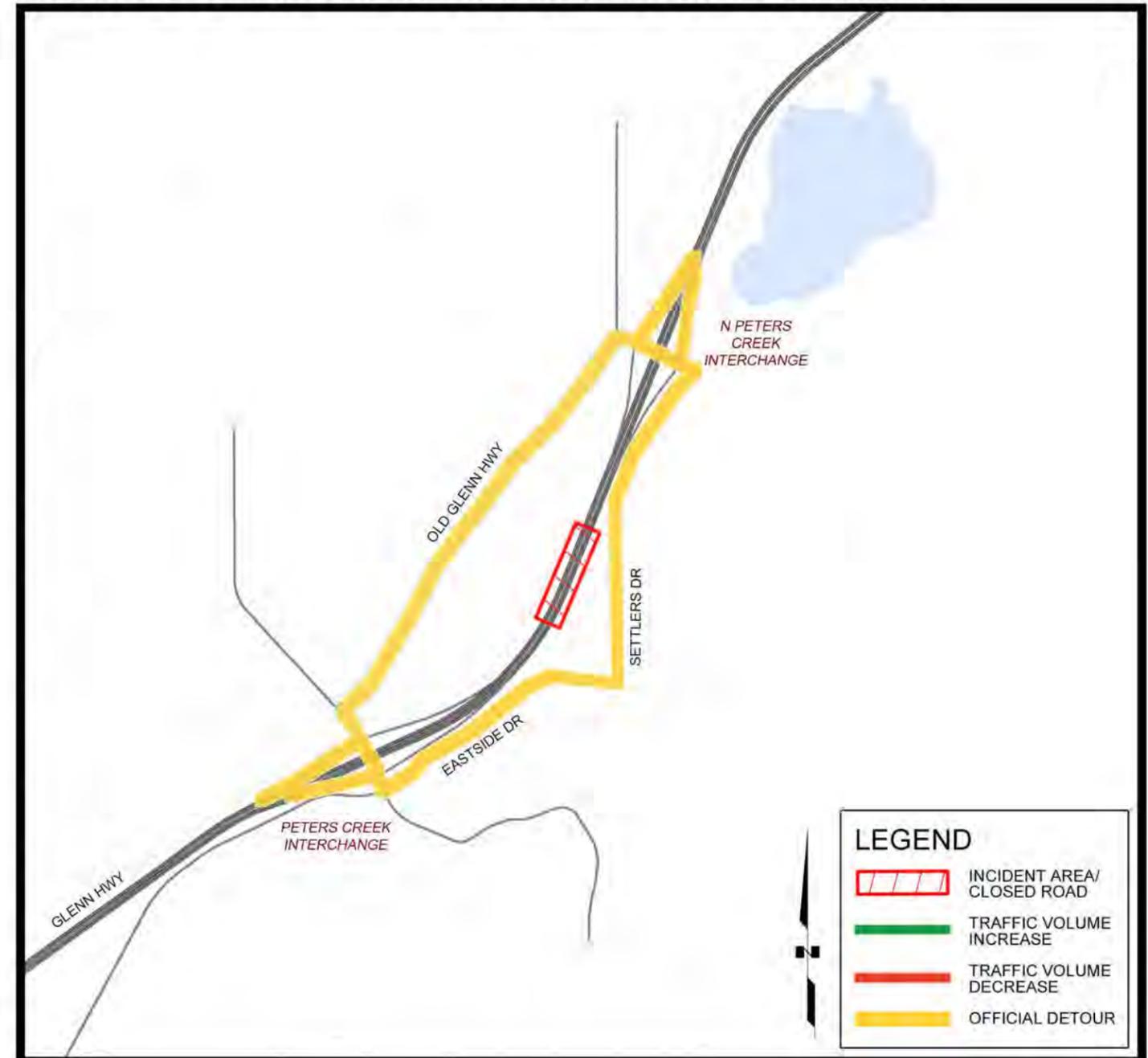
DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON TEMPORARY INFRASTRUCTURE

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF CROSSOVER (VPH)	CROSSOVER DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	1,400	500	100%
	PM	1,400	2,500	55%
Southbound	AM	1,400	2,600	55%
	PM	1,400	800	100%

*Crossover demand is the existing directional demand on the Glenn Highway.

Note: Capacity estimates are based on HCM methodology and planning level design with a target performance of LOS D/E. The detour demand is the total volume that is currently using the closed section of highway. Not all of the traffic currently using this section of highway will use the official detour, as shown in the figure to the right. Once the capacity of the detour is met, traffic will find alternative paths.

PREDICTED ALTERNATIVE DETOUR ROUTING DUE TO CLOSURES



Note: Alternative routes are estimated using 2013 Base model of the 2040 AMATS Model. Highlighted routes are routes which are likely to experience over a 1,000 AADT increase or decrease due to redirected traffic.

FILE DATE/TIME LAYOUT DESIGNED CHECKED DRAFTED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	OA16052/CFHWY00289	2019	TJ13.1	TJ17.0

DETOUR SEGMENT AND INTERSECTION CAPACITY



Note: The purpose of this graphic is to show a qualitative comparison of capacity on the segments and intersections along the detour routes. This will help to identify likely locations of bottlenecks, community impacts, and areas of possible improvement.

CAPACITY CRITERIA QUALITIES OF NORTHBOUND DETOUR SEGMENTS

SEGMENT	1	2	3	4	5	6
LENGTH (MILES)	0.17	0.02	0.51	0.65	0.02	0.18
NUMBER OF LANES IN DETOUR DIRECTION	1	1	1	1	1	1
DRIVEWAY DENSITY	Low	Low	Low	High	Low	Low
MEDIAN TYPE	Closed	Open	Open	Open	Open	Closed
OTHER DESIGN FEATURES (SEE NOTE)	-	-	NARROW SHOULDERS	NARROW SHOULDERS, SOME GRADES > 5%	-	-
AVERAGE AADT (2015 - 2017)	3,250	2,450	1,500	500	800	250
SEGMENT DETOUR CAPACITY RATING	★★	★★	★★	★★	★★	★★★

COMMUNITY IMPACT	1	2	3	4	5	6
COMMUNITY IMPACT	Low	Low	Low	Low	Low	Low

Note: Standard design features include posted speed limits of 35 mph or greater, lanes 12 ft wide or greater, shoulders 6 ft wide or greater, and level terrain. Unless otherwise notes, the segment has standard design features.

OFF PEAK TRAVEL SPEED THROUGH DETOUR	30 MPH
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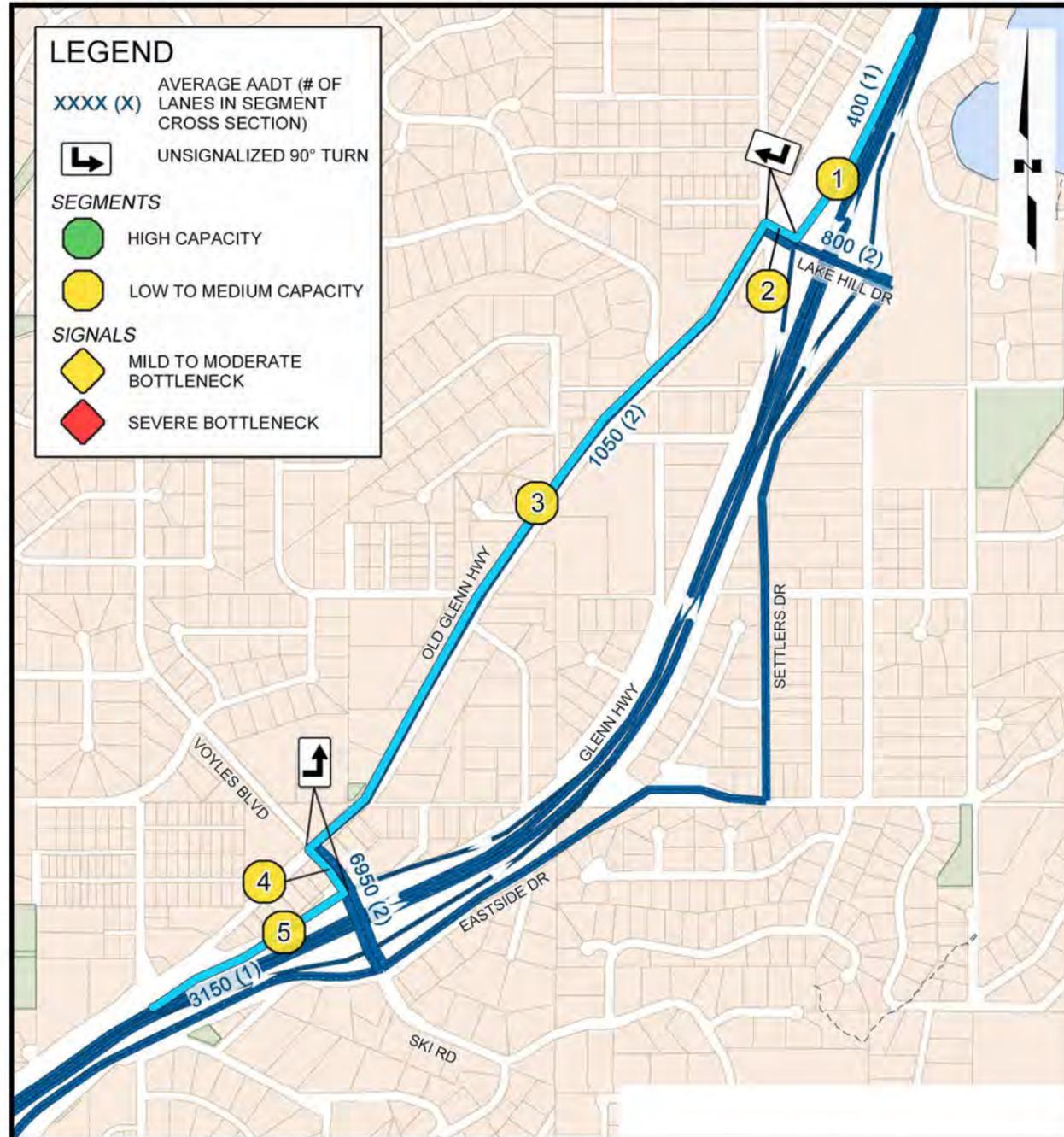
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY
PETERS CREEK TO N
PETERS CREEK INTERCHANGE
NORTHBOUND DETOUR ROUTE
CAPACITY ANALYSIS**

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 348-2373
CERT. OF AUTH. NO. AECL 1102

FILE DATE/TIME LAYOUT DESIGNED CHECKED DRAFTED

DETOUR SEGMENT AND INTERSECTION CAPACITY



Note: The purpose of this graphic is to show a qualitative comparison of capacity on the segments and intersections along the detour routes. This will help to identify likely locations of bottlenecks, community impacts, and areas of possible improvement.

CAPACITY CRITERIA QUALITIES OF SOUTHBOUND DETOUR SEGMENTS

SEGMENT	1	2	3	4	5
LENGTH (MILES)	0.20	0.03	0.91	0.06	0.17
NUMBER OF LANES IN DETOUR DIRECTION	1	1	1	1	1
DRIVEWAY DENSITY	Low	Low	High	Low	Low
MEDIAN TYPE	Closed	Open	Open	Open	Closed
OTHER DESIGN FEATURES (SEE NOTE)	-	-	NARROW SHOULDERS	-	-
AVERAGE AADT (2015 - 2017)	400	800	1,050	6,950	3,150
SEGMENT DETOUR CAPACITY RATING	★★★	★★	★★	★	★★
COMMUNITY IMPACT	Low	Low	Low	Low	Low

Note: Standard design features include posted speed limits of 35 mph or greater, lanes 12 ft wide or greater, shoulders 6 ft wide or greater, and level terrain. Unless otherwise notes, the segment has standard design features.

OFF PEAK TRAVEL SPEED THROUGH DETOUR	30 MPH
--------------------------------------	--------

FILE DATE/TIME LAYOUT DESIGNED CHECKED DRAFTED

DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON EXISTING ROAD NETWORK

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF DETOUR ROUTE (VPH)	TOTAL DETOUR DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	800	670	100%
	PM	800	2,900	15%
Southbound	AM	800	2,640	30%
	PM	800	840	95%

*Total detour demand is the sum of existing demand on the detour route plus rerouted demand from the Glenn Highway due to closure of the Glenn Highway

DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON TEMPORARY INFRASTRUCTURE

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF CROSSOVER (VPH)	CROSSOVER DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	1,400	500	100%
	PM	1,400	2,500	55%
Southbound	AM	1,400	2,600	55%
	PM	1,400	800	100%

*Crossover demand is the existing directional demand on the Glenn Highway

Note: Capacity estimates are based on HCM methodology and planning level design with a target performance of LOS D/E. The detour demand is the total volume that is currently using the closed section of highway. Not all of the traffic currently using this section of highway will use the official detour, as shown in the figure to the right. Once the capacity of the detour is met, traffic will find alternative paths.

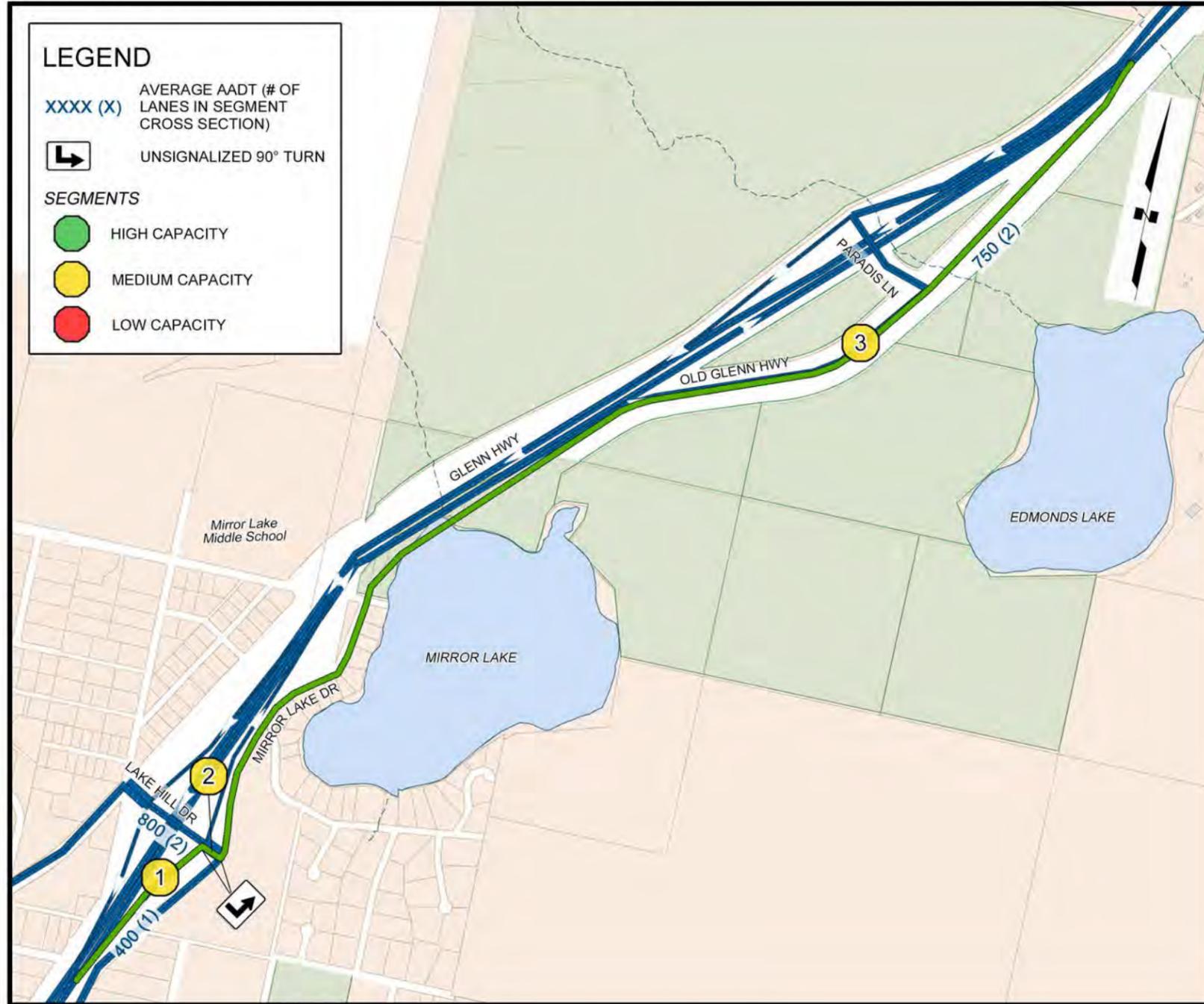
PREDICTED ALTERNATIVE DETOUR ROUTING DUE TO CLOSURES

NO ALTERNATIVE DETOUR ROUTES ARE AVAILABLE IN THIS SEGMENT

Note: Alternative routes are estimated using 2013 Base model of the 2040 AMATS Model. Highlighted routes are routes which are likely to experience over a 1,000 AADT increase or decrease due to redirected traffic.

FILE DATE/TIME LAYOUT DESIGNED CHECKED DRAFTED

DETOUR SEGMENT AND INTERSECTION CAPACITY



CAPACITY CRITERIA QUALITIES OF NORTHBOUND DETOUR SEGMENTS

SEGMENT	1	2	3
LENGTH (MILES)	0.21	0.03	1.79
NUMBER OF LANES IN DETOUR DIRECTION	1	1	1
DRIVEWAY DENSITY	Low	Low	Low
MEDIAN TYPE	Closed	Open	Open
OTHER DESIGN FEATURES (SEE NOTE)	-	-	NARROW SHOULDERS, GRADES > 5%
AVERAGE AADT (2015 - 2017)	400	800	750
SEGMENT DETOUR CAPACITY RATING	★★★★	★★	★★

COMMUNITY IMPACT	1	2	3
COMMUNITY IMPACT	Low	Low	Low

Note: Standard design features include posted speed limits of 35 mph or greater, lanes 12 ft wide or greater, shoulders 6 ft wide or greater, and level terrain. Unless otherwise notes, the segment has standard design features.

OFF PEAK TRAVEL SPEED THROUGH DETOUR	20 MPH
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Note: The purpose of this graphic is to show a qualitative comparison of capacity on the segments and intersections along the detour routes. This will help to identify likely locations of bottlenecks, community impacts, and areas of possible improvement.

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
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CERT. OF AUTH. NO. AECL 1102

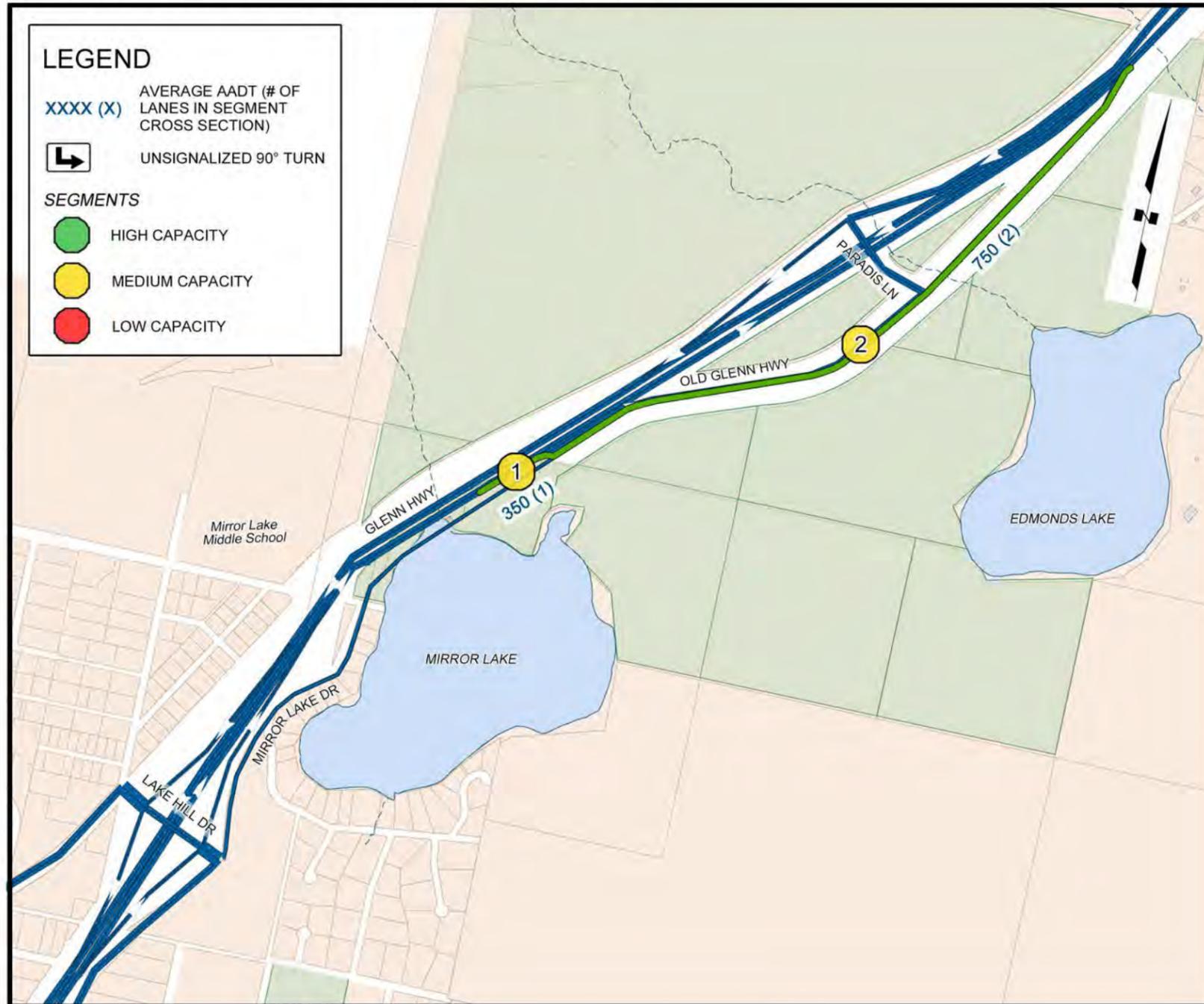
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY
N PETERS CREEK TO
MIRROR LAKE INTERCHANGE
NORTHBOUND DETOUR ROUTE
CAPACITY ANALYSIS**

FILE DATE/TIME LAYOUT DESIGNED CHECKED DRAFTED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	TJ14.1B	TJ17.0

DETOUR SEGMENT AND INTERSECTION CAPACITY



LEGEND

- XXXX (X) AVERAGE AADT (# OF LANES IN SEGMENT CROSS SECTION)
- UNSIGNALIZED 90° TURN
- SEGMENTS**
- HIGH CAPACITY
- MEDIUM CAPACITY
- LOW CAPACITY

CAPACITY CRITERIA QUALITIES OF NORTHBOUND DETOUR SEGMENTS

SEGMENT	1	2
LENGTH (MILES)	0.14	1.02
NUMBER OF LANES IN DETOUR DIRECTION	1	1
DRIVEWAY DENSITY	Low	Low
MEDIAN TYPE	Closed	Open
OTHER DESIGN FEATURES (SEE NOTE)	-	NARROW SHOULDERS, GRADES > 5%
AVERAGE AADT (2015 - 2017)	350	750
SEGMENT DETOUR CAPACITY RATING	★ ★ ★	★ ★

COMMUNITY IMPACT	Low	Very Low
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Note: Standard design features include posted speed limits of 35 mph or greater, lanes 12 ft wide or greater, shoulders 6 ft wide or greater, and level terrain. Unless otherwise notes, the segment has standard design features.

OFF PEAK TRAVEL SPEED THROUGH DETOUR	35 MPH
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Note: The purpose of this graphic is to show a qualitative comparison of capacity on the segments and intersections along the detour routes. This will help to identify likely locations of bottlenecks, community impacts, and areas of possible improvement.

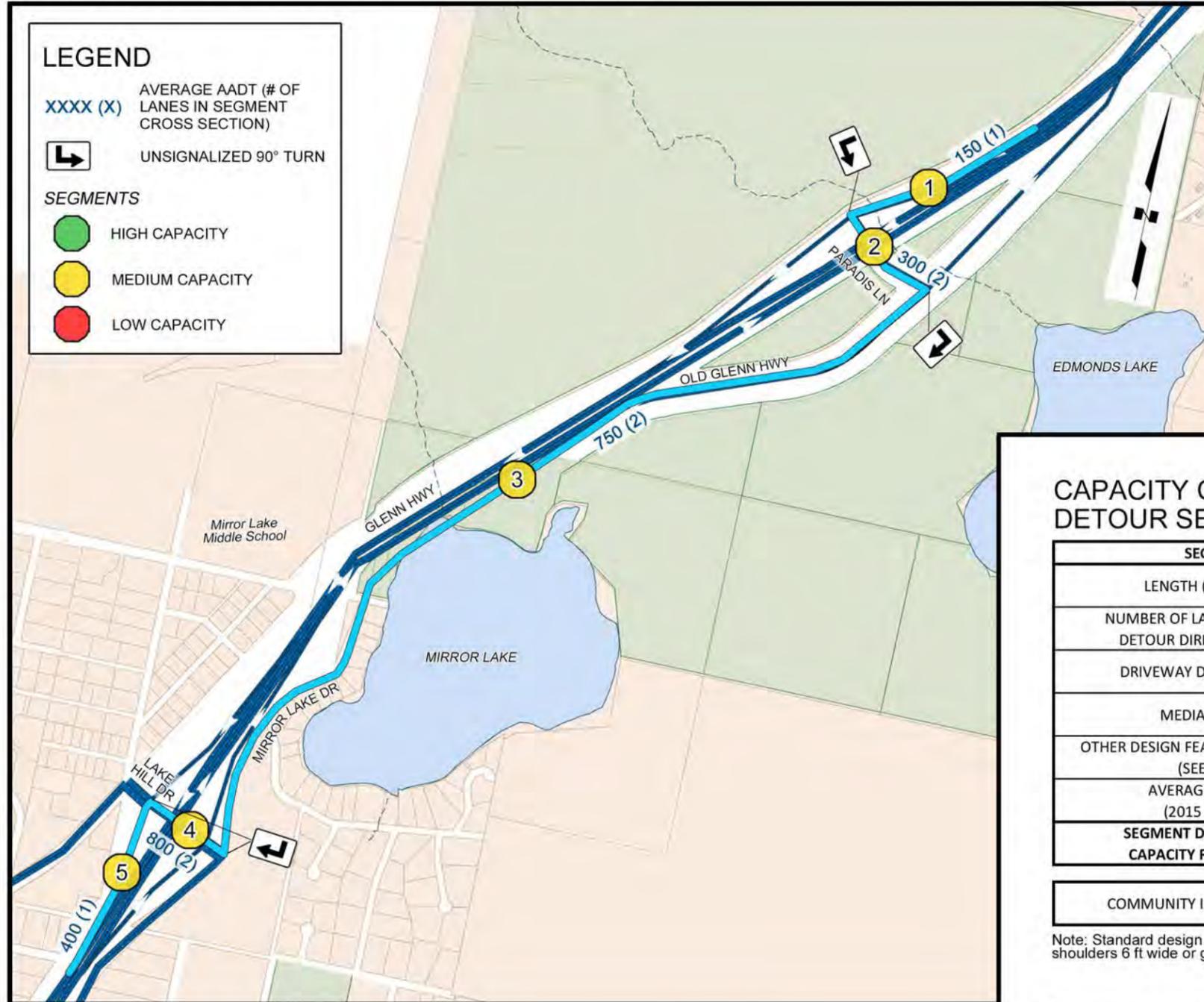
PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 348-2373
CERT. OF AUTH. NO. AECL 1102

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY
N PETERS CREEK TO
MIRROR LAKE INTERCHANGE
NORTHBOUND DETOUR ROUTE
CAPACITY ANALYSIS**

FILE DATE/TIME LAYOUT DESIGNED CHECKED DRAFTED

DETOUR SEGMENT AND INTERSECTION CAPACITY



LEGEND

XXXX (X) AVERAGE AADT (# OF LANES IN SEGMENT CROSS SECTION)

UNSIGNALIZED 90° TURN

SEGMENTS

- HIGH CAPACITY
- MEDIUM CAPACITY
- LOW CAPACITY

CAPACITY CRITERIA QUALITIES OF SOUTHBOUND DETOUR SEGMENTS

SEGMENT	1	2	3	4	5
LENGTH (MILES)	0.21	0.13	1.34	0.12	0.21
NUMBER OF LANES IN DETOUR DIRECTION	1	1	1	1	1
DRIVEWAY DENSITY	Low	Low	Low	Low	Low
MEDIAN TYPE	Closed	Open	Open	Open	Closed
OTHER DESIGN FEATURES (SEE NOTE)	-	-	NARROW SHOULDERS, GRADES > 5%	-	-
AVERAGE AADT (2015 - 2017)	150	300	750	800	400
SEGMENT DETOUR CAPACITY RATING	★★★	★★	★★	★★	★★★
COMMUNITY IMPACT	Very Low	Very Low	Low	Low	Low

Note: Standard design features include posted speed limits of 35 mph or greater, lanes 12 ft wide or greater, shoulders 6 ft wide or greater, and level terrain. Unless otherwise notes, the segment has standard design features.

OFF PEAK TRAVEL SPEED THROUGH DETOUR	25 MPH
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Note: The purpose of this graphic is to show a qualitative comparison of capacity on the segments and intersections along the detour routes. This will help to identify likely locations of bottlenecks, community impacts, and areas of possible improvement.

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

**GLENN HIGHWAY
N PETERS CREEK TO
MIRROR LAKE INTERCHANGE
SOUTHBOUND DETOUR ROUTE
CAPACITY ANALYSIS**

PLANS DEVELOPED BY:
KINNEY ENGINEERING, LLC
3909 ARCTIC BLVD, SUITE 400
ANCHORAGE, ALASKA 99503
(907) 346-2373
CERT. OF AUTH. NO. AECL 1102

FILE DATE/TIME LAYOUT DESIGNED CHECKED DRAFTED

NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	TJ15.0	TJ17.0

DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON EXISTING ROAD NETWORK

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF DETOUR ROUTE (VPH)	TOTAL DETOUR DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	0	400	0%
	PM	0	2,400	0%
Southbound	AM	0	2,500	0%
	PM	0	800	0%

*Total detour demand is the sum of existing demand on the detour route plus rerouted demand from the Glenn Highway due to closure of the Glenn Highway

DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON TEMPORARY INFRASTRUCTURE

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF CROSSOVER (VPH)	CROSSOVER DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	1,400	400	100%
	PM	1,400	2,400	60%
Southbound	AM	1,400	2,500	55%
	PM	1,400	800	100%

*Crossover demand is the existing directional demand on the Glenn Highway

Note: Capacity estimates are based on HCM methodology and planning level design with a target performance of LOS D/E. The detour demand is the total volume that is currently using the closed section of highway. Not all of the traffic currently using this section of highway will use the official detour, as shown in the figure to the right. Once the capacity of the detour is met, traffic will find alternative paths.

PREDICTED ALTERNATIVE DETOUR ROUTING DUE TO CLOSURES

NO ALTERNATIVE DETOUR ROUTES ARE AVAILABLE IN THIS SEGMENT

Note: Alternative routes are estimated using 2013 Base model of the 2040 AMATS Model. Highlighted routes are routes which are likely to experience over a 1,000 AADT increase or decrease due to redirected traffic.

FILE | LAYOUT | DESIGNED | CHECKED | DRAFTED

<p>PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3905 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 348-2373 CERT. OF ALTH. NO. ASCL 1102</p>	<p>STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES</p> <p>GLENN HIGHWAY MIRROR LAKE INTERCHANGE TO THUNDERBIRD EXIT DETOUR ROUTE CAPACITY ANALYSIS</p>
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NO.	DATE	REVISION	STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
			ALASKA	0A16052/CFHWY00289	2019	TJ16.0	TJ17.0

DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON EXISTING ROAD NETWORK

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF DETOUR ROUTE (VPH)	TOTAL DETOUR DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	1,400	480	100%
	PM	1,400	2,590	50%
Southbound	AM	0	2,500	0%
	PM	0	800	0%

*Total detour demand is the sum of existing demand on the detour route plus rerouted demand from the Glenn Highway due to closure of the Glenn Highway

DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON TEMPORARY INFRASTRUCTURE

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF CROSSOVER (VPH)	CROSSOVER DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	1,400	400	100%
	PM	1,400	2,400	60%
Southbound	AM	1,400	2,500	55%
	PM	1,400	800	100%

*Crossover demand is the existing directional demand on the Glenn Highway

Note: Capacity estimates are based on HCM methodology and planning level design with a target performance of LOS D/E. The detour demand is the total volume that is currently using the closed section of highway. Not all of the traffic currently using this section of highway will use the official detour, as shown in the figure to the right. Once the capacity of the detour is met, traffic will find alternative paths.

PREDICTED ALTERNATIVE DETOUR ROUTING DUE TO CLOSURES

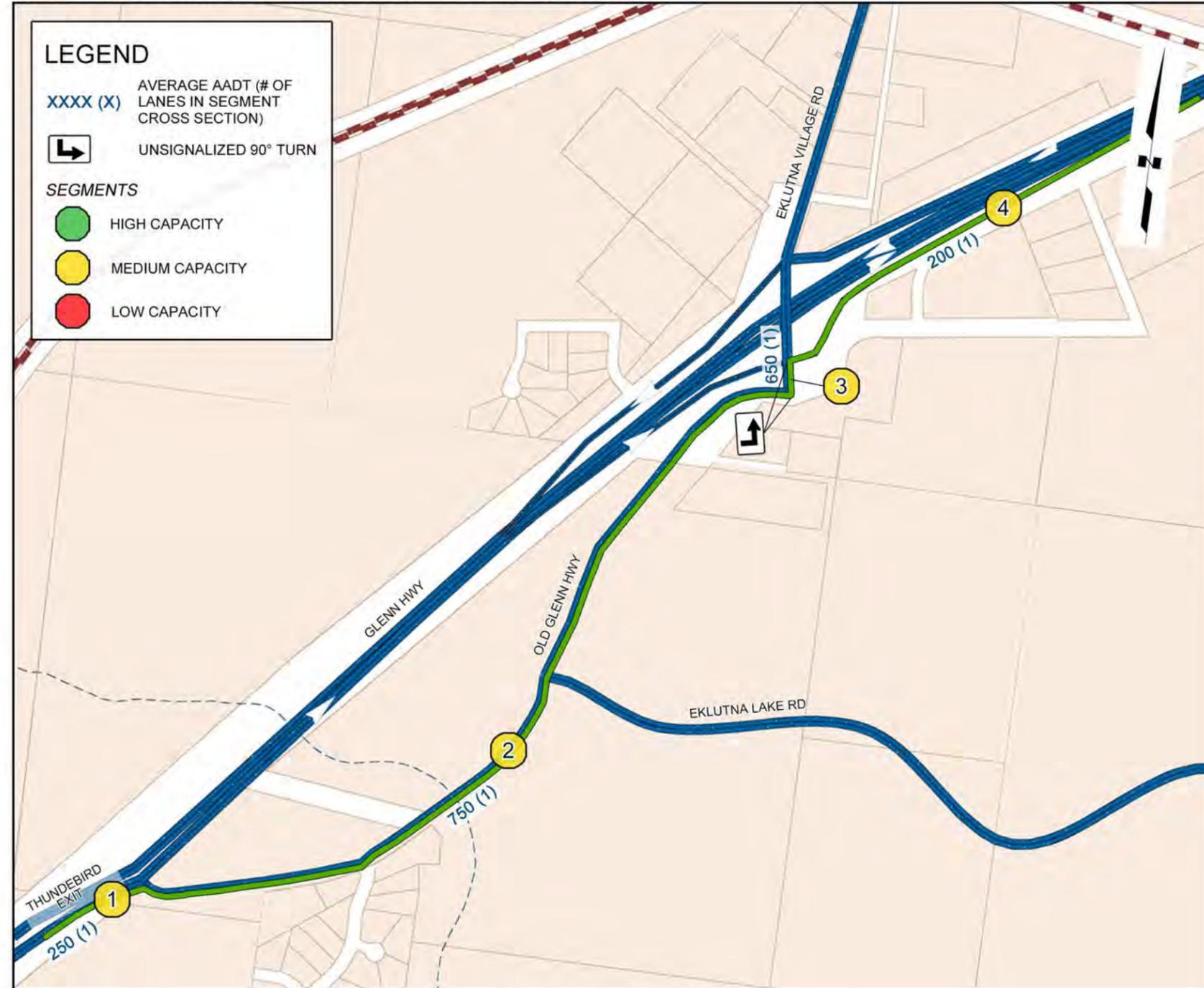
NO ALTERNATIVE DETOUR ROUTES ARE AVAILABLE IN THIS SEGMENT

Note: Alternative routes are estimated using 2013 Base model of the 2040 AMATS Model. Highlighted routes are routes which are likely to experience over a 1,000 AADT increase or decrease due to redirected traffic.

FILE | LAYOUT | DESIGNED | CHECKED | DRAFTED

PLANS DEVELOPED BY: KINNEY ENGINEERING, LLC 3905 ARCTIC BLVD, SUITE 400 ANCHORAGE, ALASKA 99503 (907) 348-2373 CERT. OF ALTH. NO. ASCL 1102	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES GLENN HIGHWAY THUNDERBIRD EXIT TO EKLUTNA INTERCHANGE DETOUR ROUTE CAPACITY ANALYSIS
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DETOUR SEGMENT AND INTERSECTION CAPACITY



Note: The purpose of this graphic is to show a qualitative comparison of capacity on the segments and intersections along the detour routes. This will help to identify likely locations of bottlenecks, community impacts, and areas of possible improvement.

CAPACITY CRITERIA QUALITIES OF NORTHBOUND DETOUR SEGMENTS

SEGMENT	1	2	3	4
LENGTH (MILES)	0.16	0.85	0.03	0.22
NUMBER OF LANES IN DETOUR DIRECTION	1	1	1	1
DRIVEWAY DENSITY	Low	Low	Low	Low
MEDIAN TYPE	Closed	Open	Open	Closed
OTHER DESIGN FEATURES (SEE NOTE)	-	NARROW SHOULDERS	-	-
AVERAGE AADT (2015 - 2017)	250	750	650	200
SEGMENT DETOUR CAPACITY RATING	★ ★ ★	★ ★	★ ★	★ ★ ★

COMMUNITY IMPACT	1	2	3	4
COMMUNITY IMPACT	Very Low	Very Low	Very Low	Very Low

Note: Standard design features include posted speed limits of 35 mph or greater, lanes 12 ft wide or greater, shoulders 6 ft wide or greater, and level terrain. Unless otherwise notes, the segment has standard design features.

OFF PEAK TRAVEL SPEED THROUGH DETOUR	40 MPH
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FILE DATE/TIME LAYOUT DESIGNED CHECKED DRAFTED

DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON EXISTING ROAD NETWORK

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF DETOUR ROUTE (VPH)	TOTAL DETOUR DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	0	400	0%
	PM	0	2,400	0%
Southbound	AM	0	2,500	0%
	PM	0	800	0%

*Total detour demand is the sum of existing demand on the detour route plus rerouted demand from the Glenn Highway due to closure of the Glenn Highway

DETOUR ROUTE CAPACITY AND TRAFFIC DEMAND ON TEMPORARY INFRASTRUCTURE

DETOUR DIRECTION	DAILY PEAK PERIOD	ESTIMATED CAPACITY OF CROSSOVER (VPH)	CROSSOVER DEMAND* (VPH)	DETOUR DEMAND SERVICED BY DETOUR ROUTE
Northbound	AM	1,400	400	100%
	PM	1,400	2,400	60%
Southbound	AM	1,400	2,500	55%
	PM	1,400	800	100%

*Crossover demand is the existing directional demand on the Glenn Highway

Note: Capacity estimates are based on HCM methodology and planning level design with a target performance of LOS D/E. The detour demand is the total volume that is currently using the closed section of highway. Not all of the traffic currently using this section of highway will use the official detour, as shown in the figure to the right. Once the capacity of the detour is met, traffic will find alternative paths.

PREDICTED ALTERNATIVE DETOUR ROUTING DUE TO CLOSURES

NO ALTERNATIVE DETOUR ROUTES ARE AVAILABLE IN THIS SEGMENT

Note: Alternative routes are estimated using 2013 Base model of the 2040 AMATS Model. Highlighted routes are routes which are likely to experience over a 1,000 AADT increase or decrease due to redirected traffic.

FILE | LAYOUT | DESIGNED | CHECKED | DRAFTED